982-I-8

TD9.15: 980

S 192

COMPLETED

73

ORIGINAL

U.S. Department of Transportation

Research and Special Programs Administration

Eleventh Annual Report on Hazardous Materials Transportation

Materials Transportation Bureau

Calendar Year 1980

Eleventh Annual Report
on
Hazardous Materials Transportation

Hazardous Materials Transportation Act
(Title I, Public Law 93-633)

Calendar Year 1980

BEST DOCUMENT AVAILABLE

Technical Report Documentation Page

1. Report No. DOT/RSPA/MTB - 82/3	2. Government Accession No.	3. Recipient's Catalog No.
4. Title and Subtitle: Eleventh Annual Report on Hazardous Materials Transportation		5. Report Date 6. Performing Organization Code 8. Performing Organization Report No.
7. Author's		
9. Performing Organization Name and Address: DOT/Research and Special Programs Administration, Materials Transportation Bureau, Washington, D.C. 20590		10. Work Unit No. (TRAIS) 11. Contract or Grant No. 13. Type of Report and Period Covered: Annual Report CY 1980
12. Sponsoring Agency Name and Address		14. Sponsoring Agency Code

15. Supplementary Notes

16. Abstract

This report is a summary of DOT activity associated with the administration of the Hazardous Materials Transportation Act (Title I, Public Law 93-633) and related legislation governing hazardous materials transportation regulation. The report includes detailed coverage of the Department's regulatory program, international activities, enforcement program, training and education activity, casualty and accident statistics, research studies, and a summary of outstanding problems.

17. Key Words	18. Distribution Statement		
hazardous materials transportation; hazardous materials regulation; accident and casualty reporting			
19. Security Classif. (of this report): Unclassified	20. Security Classif. (of this page): Unclassified	21. No. of Pages	22. Price

Form DOT F 1700.7 (8-72) Reproduction of completed page authorized

I

BLANK PAGE

TABLE OF CONTENTS

	Page
Foreword	v
Regulatory Program	1
International Activities	3
Enforcement Program	5
Training and Education	9
Hazardous Materials Safety Performance Program	11
Research and Technology Program	13
Outstanding Problems	15
Appendix A—Rulemaking Action in 1980	A—1
Appendix B—Exemptions in Effect During 1980	B—1
Appendix C—Status Report of State Adoption of Federal Hazardous Materials Regulations	C—1

BLANK PAGE

FOREWORD

The Department of Transportation (DOT) is responsible for promulgation and enforcement of regulations necessary to ensure the safe transportation of hazardous materials by all modes. The Hazardous Materials Transportation Act of 1974 (Title I of P.L. 93-633) provides the primary legislative authority for the Department's hazardous materials program, but a number of other related statutes also guide the program. Among these are the Dangerous Cargo Act of 1940, sections 601(c) and 902(h)(1) of the Federal Aviation Act of 1958, the Tank Vessel Act of 1936, the Ports and Waterways Safety Act of 1972, the Federal Railroad Safety Act of 1970, section 311 of the Federal Water Pollution Control Act Amendments of 1972, and the Resource Conservation and Recovery Act of 1976.

The hazardous materials program is conducted by five of the Department's operating administrations which, although delegated separate responsibilities, cooperate to provide a consistent approach and preclude duplicative actions.

The Materials Transportation Bureau (MTB), part of the Research and Special Programs Administration, develops and issues regulations for the safe transportation of hazardous materials by all modes (excluding bulk transportation by water). The regulations cover shipping and carrier operations, packaging and container specifications, hazardous materials definitions, and communication of hazards.

MTB is also responsible for enforcement of regulations other than those applicable to a single mode of transportation. MTB places primary emphasis on enforcement of regulations applicable to manufacturers, reconditioners, and retesters of DOT specification containers and to multimodal shippers of hazardous materials. The other operating administrations—United States Coast Guard (USCG), Federal Aviation Administration (FAA), Federal Highway Administration (FHWA), and Federal Railroad Administration (FRA)—retain jurisdictional responsibility for enforcement action relating to transportation by water, air, highway, and rail, and contribute to the development of substantive provisions of the regulations. The USCG also issues and enforces regulations applicable to bulk transportation of hazardous materials by the marine mode.

In support of these intramodal activities and with specific responsibility for the intermodal regulatory program, MTB is the national transportation focal point for coordination and control of domestic and international shipments of hazardous materials. The Department is thus enabled to conduct a coordinated multimodal regulatory program which accommodates increases in the diversity and complexity of hazardous materials and their packaging, the distances hazardous materials are shipped, the number of intermodal transfer operations, and the amount of hazardous materials in international transportation.

REGULATORY PROGRAM

Amendments

During 1980, MTB issued 16 amendments to the hazardous materials transportation regulations contained in Title 49, Code of Federal Regulations, Parts 100–189. Most of these involved expanding the scope and updating or clarifying the existing regulations.

Hazardous wastes and substances. MTB published regulations in 1980 which specifically addressed the transportation of hazardous wastes and substances.

Waste materials differ from virgin materials in several respects that affect their transportation. The physical, chemical, and biological characteristics of a waste are likely to be more difficult to establish in transportation emergencies. The mixing of waste materials from different sources increases the difficulty of predicting and communicating the hazard of the resulting mixture. In addition, the shipper of a waste material may have little economic interest in monitoring the transportation and delivery of the waste to a treatment, storage, or disposal site. Transportation responsibility is a key element in ensuring proper offsite disposal of hazardous wastes.

Hazardous substances, as defined by section 311 of the Clean Water Act, include any materials "the discharge of which may be harmful to the public health or welfare."

The legislation authorizing the Federal government to regulate transportation and disposal of hazardous wastes and hazardous substances designated the Environmental Protection Agency (EPA) as the primary regulatory agency on the issue. Because the legislation overlaps significantly with provisions of the Hazardous Materials Transportation Act, EPA and MTB were concerned that those involved in transporting hazardous wastes and hazardous substances not be confronted with two sets of inconsistent regulations. Accordingly, EPA and MTB developed joint regulations pertaining to transportation of hazardous wastes, and MTB incorporated EPA's listings and reportable quantity criteria for hazardous substances into MTB's transportation standards.

MTB's regulations introduce an entirely new hazard class—ORM-E—to cover materials which pose long-term hazards to health and safety or to the environment. This hazard class encompasses hazardous wastes and 99 hitherto unregulated materials identified by EPA as hazardous substances. The amendment also broadens the applicability of the regulations to include intrastate shipments of hazardous wastes and hazardous substances by motor carriers.

Hazardous materials identification numbers. In order to improve the capability of emergency response personnel to quickly identify hazardous materials and ensure the accurate transmission of information to and from the scenes of accidents, the regulations were amended to include requirements for the display of a four-digit number on shipping papers, packages, and certain transport vehicles. The numbering system is based on the system adopted for worldwide use by the United Nations Committee of Experts on the Transport of Dangerous Goods, and is keyed to information contained in the 1980 Emergency Response Guidebook (ERG). The ERG, published by MTB, provides guidance with respect to a hazardous material's health hazard, potential for fire or explosion, recommended emergency action and fire tactics, spill or leak behavior, and first aid procedures. The guide is distributed without charge to emergency response entities throughout the country.

Additional Amendments. Several other amendments to the hazardous materials transportation regulations were issued in 1980. Among these were amendments which:

- Authorize the use of United Nations shipping descriptions for package markings and shipping paper entries for import or export shipments by vessel;
- Decrease by half the maximum and average radiation levels permissible in the passenger compartment of aircraft, and encourage a shift from passenger-carrying to cargo-only aircraft for radioactive materials shipments through a fourfold increase on load limits;
- Add over 200 specifically-named materials to the Hazardous Materials Table with the notation that they are forbidden from transportation in commerce;
- Eliminate 20 packaging specifications determined to be unnecessary because of technological obsolescence, thereby eliminating 48 pages of rules in the interest of maintaining fewer, simpler, less burdensome regulations;
- Eliminate the requirement that carriers prepare written reports of transportation incidents involving certain low risk hazardous materials, a change expected to result in significant savings to the public without adversely affecting public safety.

Proposed Rules

Notices of Proposed Rulemaking (NPRM) and Advance Notices of Proposed Rulemaking (ANPRM) evolve from petitions for rulemaking received from the general public,

rulemaking proposals from the other modal administrations, or from the staff's own initiative to improve existing rules or provide for particular situations not currently covered by the regulations. Nine NPRMs and three ANPRMs were published in 1980. A summary of the more significant actions follows.

Highway routing of radioactive materials. On January 28, 1980, the Materials Transportation Bureau proposed regulations requiring vehicles carrying radioactive materials to avoid heavily populated areas and minimize travel time. Motor vehicles hauling "high-level" radioactive shipments—such as spent nuclear plant fuel—would be required to travel only on "preferred" highways—interstate highways or alternative routes selected by the states in accordance with established guidelines. Vehicles carrying lower-level radioactive materials, such as medical, research, and industrial-use isotopes and low-level wastes, would be subject to less restrictive routing requirements. The rules would also require preparation of written route plans, filing of route plans with MTB, and periodic training for vehicle operators.[1]

Transportation of wet electric storage batteries. Prompted by significant public interest and controversy concerning the transportation on passenger-carrying aircraft of wheelchair equipment with wet electric batteries containing corrosive battery fluid, MTB issued an ANPRM soliciting information to be used in developing an acceptable standard regulating such equipment. Comments and suggestions are also sought with regard to improving, simplifying, clarifying, or eliminating current regulations.

Safety improvement program for DOT 105 tank cars. MTB proposes to upgrade construction and maintenance standards for railroad tank cars to include shelf couplers, head shields, thermal protection systems, and safety relief valves. The proposed requirements are similar to regulations already in effect for the larger DOT specification 112 and 114 tank cars.

Specification and usage requirements for aluminum cylinders. This proposal for specifications for a seamless aluminum cylinder should provide for greater acceptance of aluminum cylinders by shippers of compressed gases, and would eliminate the need for six exemptions which currently authorize use of over 1,000,000 such cylinders.

Limited quantities of radioactive materials. This ANPRM provides background information on the existing regulations applicable to transportation of limited quantities of radioactive materials, and seeks comment on the need for additional requirements or elimination of certain existing requirements. The rulemaking will ultimately resolve inconsistencies among the regulations applicable to different transportation modes.

Appendix A provides a listing of all rulemaking actions published in 1980.

Other Rulemaking Activity

The Motor Carrier Act of 1980 was signed into law on July 1, 1980. Section 30 of the Act sets forth minimum levels of financial responsibility for motor carriers involved in the transportation of hazardous materials. The Act gives the Secretary of Transportation the statutory authority to modify these limits within one year of enactment. Changes must be made by regulation and could be in effect for any part of a two-year period. In August, the Federal Highway Administration issued an ANPRM soliciting comment and information on the levels of financial responsibility set forth in the Act and on the need to modify these requirements. The reduced rates as provided in the Act may be:

a. $750,000 reduced to no less than $500,000 for the interstate transportation of non-hazardous property;
b. $5,000,000 reduced to no less than $1,000,000 for the transportation of certain hazardous materials; and
c. $1,000,000 reduced to no less than $500,000 for the transportation of other hazardous materials.[1]

Exemptions

MTB grants exemptions to the hazardous materials transportation regulations to satisfy non-standard practices and procedures which develop in day-to-day transportation activity. The need for exemptions, or exceptions, to the regulations arises from the changing nature of hazardous materials transportation. Literally hundreds of new chemical mixtures or variations of existing mixtures are produced by the chemical industry every year. New packaging techniques and new or improved containers are being developed continuously. There is a host of other peculiar shipping situations or one-time movements of materials that cannot possibly be addressed by a simple set of codified regulations. The exemptions process exists to accommodate these situations when it can clearly be shown that shipment of the hazardous material involved can be accomplished in a safe and effective manner.

In 1980, MTB received 1,179 applications for exemptions. A total of 1,205 requests were granted during the year; 997 of these were renewals, modifications or parties to existing exemptions. The total number in effect at the end of 1980 was 914, involving 2,677 holders of and parties to exemptions. Appendix B presents a list of all exemptions in effect during 1980.

---

[1] This regulation has been selected for a priority, detailed review of its costs and benefits so that this Administration may determine whether the regulation achieves a necessary public purpose at the lowest cost. The review should be completed well before the regulation's scheduled effective date of February 1, 1982.

[1] In June 1981 final regulations were issued establishing the formal minimum levels of financial responsibility for motor carriers. With minor exceptions, the regulations make the maximum reductions permitted in the Act.

INTERNATIONAL ACTIVITIES

To develop a unified, consistent approach to the safe transportation of hazardous materials, the Department of Transportation coordinates its programs at an international level with governmental and non-governmental bodies. The United States' position has been to promote a worldwide system that provides necessary consistency between model and regional recommendations to ensure that, insofar, as is practical, hazardous materials shipments may move freely and safely between the various modes and regions of the world.

Failure to provide strong United States participation in the development of international standards would have a severe impact on the United States domestic hazardous materials industry. Export shipments of chemicals and allied products, for example, totalled $20.74 billion in 1980, representing 9.4 percent of all U.S. exports, and contributing $11.7 billion to a favorable balance of trade.

MTB personnel contributed to the work of five international organizations in 1980. A description of each organization and its accomplishments follows.

United Nations Committee of Experts on the Transport of Dangerous Goods

The Committee of Experts is the focal point for international activity related to the transport of packaged hazardous materials (except radioactive materials). MTB represents the United States on the Committee and its subsidiary bodies.

The Committee itself meets in the fall of even numbered years to approve the work of the subsidiary bodies—the Group of Experts on Explosives and the Group of Rapporteurs. The agenda for the December 1980 meeting included adoption of recommendations concerning standards for portable tanks intended for the carriage of liquids and gases; classification, labeling, and packaging for a number of newly-listed hazardous materials; and rationalized procedures and test methods to ensure consistent results in the classsification of explosives.

In addition, the Committee reported to the United Nations Economic and Social Council that, in view of progress now being made toward harmonization of international regulations based on UN recommendations, it is not necessary at this time to embark on the elaboration of an international, multi-modal convention governing the transportation of hazardous materials.

Intergovernmental Maritime Consultative Organization (IMCO)

IMCO is the international body responsible for development of worldwide standards for the transport of hazardous materials by water. The USCG provides primary United States representation; this year MTB was invited to participate in the session of the Carriage of Dangerous Goods (CDG) subcommittee.

The CDG Subcommittee conducts a continuing program to bring the International Maritime Dangerous Goods (IMDG) Code into alignment with UN recommendations to provide a basic intermodal consistency with regard to the description, classification, marking, labeling, and packaging of hazardous materials. Of particular note in this area is the adoption by IMCO of new recommendations for the preparation of transport documentation based on UN recommendations and consistent with DOT regulations. MTB also assisted IMCO in its preparation of emergency procedures to be followed in the event of ship board incidents involving hazardous materials.

International Civil Aviation Organization (ICAO)

The Dangerous Goods Panel (DGP) was established in 1977 and charged with drafting an annex to the Chicago Convention that would provide basic requirements for the safe transportation of dangerous goods by air, and with the development of detail Technical Instructions which would encourage a uniform implementation of basic annex provisions by governments. The DGP completed drafts and requirements based on comments by member governments on the Annex and Technical Instructions in 1980, and it is anticipated that these will be adopted by the ICAO Council in 1981 and implemented over a period of several years.

European Economic Community (EEC) Group of Experts on the Transport of Dangerous Goods

The EEC Group of Experts is responsible for updating and revising the European Agreement concerning the Carriage of Dangerous Goods by Road (ADR). Twice each year, this group meets jointly with the body responsible for updating the European Rail Convention to ensure consistency between the two sets of regulations.

In response to specific requests by the hazardous materials industry, representatives of MTB participated in both meetings in 1980. The EEC was considering significant

amendments to the European road and rail conventions which would incorporate UN classification and grouping criteria for certain classes of materials, and UN packaging performance tests. Adoption of these amendments would greatly facilitate United States exports into Europe by ensuring that the European conventions are consistent with the applicable IMCO requirements.

International Atomic Energy Agency (IAEA)

In 1980, MTB personnel participated in six international meetings concerning the transportation of radioactive materials.

The Standing Advisory Group for the Safe Transport of Radioactive Materials, the most influential advisory group on transport for the IAEA, met in April of 1980 to plan IAEA's future program in transport and to approve procedures relevant to preparing the 1983 revision of the IAEA transport regulations.

IAEA held two meetings to plan revisions of the international transport regulations for radioactive materials. The first revision panel was held in September 1980, chaired by the representative from MTB, and was very successful. A draft of proposed changes was completed.

The IAEA, at member nations' request, has undertaken to perform worldwide risk assessment of transportation involving radioactive materials. In order to ensure adequate technical support and uniform participation, IAEA has established a Risk Assessment Oversight Committee which first met in August 1980.

The Radioactive Transport Study Group (RTSG), composed of representatives of the major industrialized countries, meets biannually to consider administrative problems in this field and to attempt to minimize difficulties involving international transport and application of the IAEA regulations. The RTSG met in November 1980 to resolve certain identified problems and consider changes to the administrative sections of the IAEA regulations.

Also in November, the sixth international symposium on the packaging and transportation of radioactive materials was held under the auspices of the IAEA.

Continued participation by the Department is essential because the impact of the recommendations and regulations issued by these organizations is felt directly by domestic industries involved in the international sale and distribution of hazardous materials. Active involvement by the Department will ensure that the requirements developed by these bodies promote safety, but do not hinder the free movement of hazardous materials by creating non-tariff trade barriers.

ENFORCEMENT PROGRAM

The Department of Transportation conducts a wide-ranging multi-modal program of inspection and surveillance to assure industry compliance with the hazardous materials transportation regulations, and to reduce the potential for catastrophic accidents which may result from regulation violations.

Inspection Activity

In 1980, the Department had a total of 227.39 work years available for the hazardous materials enforcement program, divided among the operating administrations as shown in Table 1. Safety inspectors conducted 27, 966 inspections of facilities, 69,424 inspections of transport vehicles, and 4,796 accident investigations. Table 2 presents a breakdown by modal administration of inspection and investigation activity.

FAA's Office of Civil Aviation Security field inspectors perform hazardous materials inspections of airlines and aviation facilities during scheduled security inspections. Inspections are concentrated on major airlines at the approximately 40 airports which handle upwards of 92 percent of all hazardous materials transported by air. Security inspectors are currently based at most of those airports and conduct inspections on a frequent and regular basis. Major passenger-carrying domestic, flag, foreign, and scheduled air carriers are inspected quarterly. All other air carriers dealing in hazardous materials shipments are inspected annually.

The Coast Guard conducts vessel boardings and waterfront inspections to ensure compliance with regulations under Titles 33, 46, and 49 of the Code of Federal Regulations. Violations are reported to the District Commanders and penalty procedures are initiated under that officer's authority.

Enforcement Actions

Violations of the hazardous materials transportation regulations may result in the assessment of civil penalties or in criminal sanctions. In 1980, the Department initiated over 2,000 civil penalty actions against violators, and collected a total of $1,654,539 in civil penalties. The FAA completed one criminal action, resulting in payment of a $25,000 sanction. A summary of all hazardous materials enforcement actions taken in 1980 appears in Table 3.

Federal/State Cooperation

The Department of Transportation and the Nuclear Regulatory Commission (NRC) continued their joint effort to obtain the assistance of state radiological health agencies in conducting surveys and collecting information about the transportation of radioactive materials. In July 1980, DOT and NRC signed an agreement, "A Review and Prospectus", in which both agencies agreed to shift the program emphasis from data collection to standards enforcement by the states. The principal objective of the program is now enforcement of the radioactive materials transportation regulations by participating states. At year's end, six states were participating in the program.[1]

The Department continues to encourage states to adopt the Federal hazardous materials transportation regulations and works with individual states which express an interest in such adoption or implementation. By fostering the adoption of Federal standards by the states, the Department benefits from increased enforcement by state personnel. This has the effect of significantly increasing the number of inspectors enforcing the regulations, and allows states to target their resources to particular state needs and concerns. Appendix C presents a status report on state adoption of the Fedeal regulations.

Interagency Cooperation

Because a number of Fedeal agencies are involved in ensuring the safe transportation of hazardous materials, the Deparment has entered into several agreements to coordinate enforcement efforts and minimize duplicative actions. Among these are:

- **DOT/EPA Hazardous Waste Enforcement MOU.** On June 24, 1980, the Department of Transportation and the Environmental Protection Agency (EPA) signed a Memorandum of Understanding (MOU) concerning the enforcement of standards applicable to the shipment and transportation of hazardous wastes. The MOU covers enforcement activities conducted by DOT under the Hazardous Materials Transportation Act and by EPA under the Resource Conservation and Recovery Act and under recently-promulgated regula-

[1] The number of states now participating is limited by the amount of funding availabale from DOT and NRC.

tions. The MOU discusses each agency's statutory authority, areas of regulatory overlap, duties to be carried out separately, and areas of joint interest and cooperation.

- **DOT/NRC Working Arrangements.** In October 1980, the DOT and the Nuclear Regulatory Commission (NRC) signed a Working Arrangements document for radioactive materials inspection, enforcement, and accident investigation activity. The document sets forth areas in which NRC will operate (inspection and enforcement of transportation regulations at NRC licensee sites, for example), and where DOT will operate (non-NRC licensee sites and carrier operations), and establishes procedures for exchange of information concerning enforcement cases and accident and incident information.

Table 1

Hazardous Materials Inspectors—1980

OPERATING ADMINISTRATION	FULL-TIME INSPECTORS	PART-TIME			TOTAL WORK-YEARS
		INSPECTORS	PERCENT OF TIME	WORK-YEARS	
USCG	0	770	15	115.50	115.50
FAA	12	176	4	7.04	19.04
FHWA	9	161	25	40.25	49.25
FRA	24	64	15	9.60	33.60
MTB	10	0	0	0	10.00
Totals	55	1,171		172.39	227.39

Table 2

Hazardous Materials Inspections and Investigations
1979—1980

Operations/Facilities	USCG		FAA		FHWA		FRA		MTB		TOTAL	
	1979	1980	1979	1980	1979	1980	1979	1980	1979	1980	1979	1980
Carriers			6,334	1,698	1,556	1,470	1,583	1,892		1	9,473	5,061
Shippers					1,343	1,673	640	983	62	119	2,045	2,775
Waterfront	14,784	19,546									14,784	19,546
Container Manufactures							128	149	109	97	237	246
Drum Reconditioners									90	117	90	117
Cylinder Retesters										32		32
Shipment Observations										90		90
Freight Forwarders							89	76	33		122	76
Other									32	23	32	23
Vehicles/Vessels												
Railroad Tank Cars							15,926	19,010			15,926	19,010
Railroad Freight Cars							7,620	7,914			7,620	7,914
Vessels	39,643	39,138									39,643	39,138
Motor Vehicles					3,470	3,362					3,470	3,362
Accidents/Incidents	9,148	4,130	142	21	121	121	398	523	2	1	9,811	4,796
Total	63,575	62,814	6,476	1,719	6,490	6,626	26,384	30,547	328	480	103,253	102,186

Table 3

Hazardous Materials Enforcement Actions 1979—1980

Operating Administration	Action	1979	1980
USCG	Civil Penalty Actions Initiated	2,204	935[1]
	Civil Penalty Actions Completed	946	996
	Total Collected	$456,205	$167.136
	Average Penalty	$482	$168
FAA	Criminal Cases Initiated	—	3
	Criminal Cases Completed	—	1
	Total Fines	—	$25,000
	Civil Penalty Actions Initiated	97	99
	Civil Penalty Actions Completed	55	13
	Total Collected	$132,750	$30,500
	Average Penalty	$2,414	$2,446
FHWA	Criminal Cases Initiated	—	—
	Criminal Cases Completed	1	—
	Total Fines	$17,000	—
	Civil Penalty Actions Initiated	176	126
	Civil Penalty Actions Completed	92	140
	Total Collected	$333,250	$411,183
	Average Penalty	$3,622	$2,937
	Cases Closed with No Action	11	20
FRA	Civil Penalty Actions Initiated	83	209
	Total Collected	$656,070	$986,770
	Average Penalty	$7,904	$4,721
MTB	Civil Penalty Actions Initiated	18	29
	Civil Penalty Actions Completed	21	24
	Compliance Orders Initiated	1	0
	Compliance Orders Completed	3	0
	Total Collected	$47,050	$58,950[2]
	Average Penalty	$2,240	$2,456
	Warnings	127	240

[1] A Complete summary of civil penalty actions taken by USCG in 1980 is unavailable as District Commanders are no longer required to forward this information to Headquarters. The figures represent approximately one-half of total cases.

[2] Does not include $50,000 collected in settlement of one completed actions.

TRAINING AND EDUCATION

The Department of Transportation's training and education program is an important aspect of its overall regulations enforcement effort. To foster compliance with the hazardous materials regulations, the Department sponsors a number of training and information dissemination activities designed to familiarize industry personnel with the requirements of the regulations and to educate Federal and state inspectors in enforcement procedures.

Training

The Department's Transportation Safety Institute (TSI), located in Oklahoma City, continues to conduct in-depth training for Federal, state, and industry personnel responsible for ensuring industry compliance with the Federal hazardous materials transportation regulations, and for responding to hazardous materials transportation emergencies. The Department's operating administrations provide TSI with financial and technical support, including associate instructors for individual courses. Table 4 provides a summary of 1980 courses and attendees.

The operating administrations and MTB sponsor additional training sessions and routinely participate in college and private industry sponsored training programs. FRA conducted 37 Fire and Emergency Service Seminars which trained a total of 4,500 people and 310 more attended four Railroad Operating Personnel Seminars; FHWA personnel

Table 4

Training Conducted by the Transportation Safety Institute

Course	Participants	No. of Classes	No. of Students
FAA Multimodal Transportation of Hazardous Materials Shipper's Course	FAA Personnel	2	31
Air Transportation of Hazardous Materials	FAA Civil Air Security Personnel	5	100
Hazardous Materials Safety Inspection and Enforcement	FHWA Investigators; State and Federal Enforcement Personnel	7	132
Motor Carrier Transportation of Hazardous Materials (Advanced)	FHWA Enforcement Personnel	1	20
Hazardous Materials Emergency Services Workshop	State/Federal/Local Govt and Emergency Response Personnel	24	1478
Nonresident Programmed Instruction	State, Federal, and Industry Personnel	N/A	730
Transportation of Hazardous Materials Seminar	Industry and Federal Personnel	3	283
		42	2774

conducted or participated in 823 seminars which trained personnel from the motor carrier industry, hazardous materials shippers, and state and local governments; and MTB sponsored six hazardous materials "awareness" seminars which trained 428 industry and local government representatives.

The USCG participated in 20 training courses concerning the safe handling of hazardous materials conducted at various schools maintained by maritime interests with a total attendance of approximately 400 persons, and sponsored 22 training sessions attended by 625 Coast Guard personnel.

In addition, MTB assisted in the development of a pilot project for a Regional Hazardous Materials Training Center in Colorado, the first of several planned regional training centers to be located in different parts of the country. The Colorado center, partially funded by MTB, uses existing state facilities and local personnel to conduct a variety of courses concerning hazardous materials transportation for industry representatives and state and local enforcement personnel.

The highly successful Colorado training center—participants came from 30 states and two foreign countries—will become the model for additional regional training centers planned for other areas of the country. The regional training center concept allows state and local governments, including enforcement and emergency response agencies, and industry groups to involve themselves in training course development and implementation to a much larger degree than is possible in training programs operated by the Federal government. This, in turn, results in a more flexible training and education program geared to local needs and concerns.

In addition to sponsoring classroom training, the Department of Transportation offers a variety of pamphlets, charts, posters, fact sheets, and other handout material for use by those involved in hazardous materials transportation. The Materials Transportation Bureau maintains 40 such items, and distributed over 1.5 million of them in response to approximately 10,000 requests in 1980.

The Coast Guard distributed almost 5,000 copies of six publications dealing with cargo tanks, liquefied natural gas safety, and safe handling of vinyl chloride, styrene, and benezene; and developed two training films for use by industry and Coast Guard personnel.

The MTB booklet, "A Review of the Department of Transportation's Regulations for the Transportation of Radioactive Materials", was revised and distributed to individuals and organizations engaged in transporting radioactive materials.

MTB distributed its new Emergency Response Guidebook to fire, police, civil defense, and emergency services personnel, and to colleges and universities, and other interested persons and organizations. The Guidebook, an updated version of the Emergency Action Guide, provides information to aid in identification and spill containment of hazardous materials involved in transportation accidents. Over 100,000 copies of the Guidebook have been distributed thus far. MTB's ultimate objective is to place copies in every police, fire, civil defense, and rescue squad vehicle in the United States. To this end, the International Association of Fire Chiefs is cooperating with the Interantional Association of Chiefs of Police and the United States Civil Defense Council relative to distribution of the Guidebook through contractual arrangements with MTB.

BEST DOCUMENT AVAILABLE

HAZARDOUS MATERIALS SAFETY PERFORMANCE PROGRAM

The Department of Transportation maintains a centralized hazardous materials information system to gather and analyze accident data from hazardous materials shippers and carriers. The information is used to pinpoint safety problems, and to determine areas where additional rulemaking or enforcement action might be required.

In 1980, 19 deaths and 619 injuries resulted from 16,115 hazardous materials transportation incidents. Clearly, many of the 16,115 incidents did not involve serious consequences. In fact, only 324, or 2.0 percent, of total reported incidents can be considered severe—that is, an accident causing a fatality or injury, or necessitating evacuation of the surrounding area. These 324 accidents accounted for 20 evacuations in addition to all fatalities and injuries reported.

There were eight fatal accidents in 1980, which is 2.4 percent of severe accidents and .04 percent of all incidents reported in 1980. Of these, five involved vehicular accidents and one a derailment. These six accidents accounted for 14 fatalities, or 73.7 percent of all fatalities occurring during the year.

Of the 619 injuries attributable to hazardous materials transportation incidents in 1980, 218, or 35.2 percent, resulted from only 15 accidents. These 15 accidents represent 4.6 percent of severe accidents and .09 percent of all incidents reported.

A comparison with previous years, as shown in the accompanying table, indicates that reported incidents, and injuries and property damage resulting from those incidents decreased in 1980 over 1979.

BEST DOCUMENT AVAILABLE

Table 5

Incidents By Mode and Reporting Year

MODE	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	TOTAL
Air	4	33	49	157	152	90	130	231	284	233	1,339
Highway (for hire)	1,552	3,558	5,048	7,251	8,968	10,223	13,000	15,983	15,355	14,042	88,745
Highway (private)	224	342	419	361	903	549	1,250	565	623	442	4,975
Railway	343	333	409	616	676	982	1,500	1,191	1,215	1,327	7,991
Water	11	9	12	26	32	13	50	47	34	42	238
Freight Forwarder	0	0	0	2	6	11	20	5	2	1	37
Other	121	53	65	15	12	21	0	0	11	28	345
TOTALS	2,255	4,328	6,002	8,428	10,769	11,889	15,950	18,022	17,524	16,115	103,670

Deaths by Mode and Reporting Year

MODE	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	TOTAL
Air	0	0	0	4	0	0	0	0	0	0	4
Highway (for hire)	18	6	11	14	7	12	14	14	12	13	121
Highway (private)	5	6	7	4	20	4	17	6	6	4	79
Railway	0	0	3	10	0	2	1	26	0	2	44
Water	0	0	0	0	0	0	0	0	0	0	0
Freight Forwarder	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
TOTALS	23	12	21	32	27	18	32	46	18	19	248

Injuries by Mode and Reporting Year

MODE	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	TOTAL
Air	0	0	6	5	4	4	9	43	13	8	92
Highway (for hire)	122	192	297	243	395	568	447	536	608	425	3,833
Highway (private)	60	49	38	38	92	49	60	58	89	53	596
Railway	21	53	152	596	96	198	233	482	228	129	2,188
Water	48	0	3	17	2	1	0	10	1	1	83
Freight Forwarder	0	0	0	4	15	0	0	1	0	1	21
Other	2	0	13	0	51	0	0	0	2	2	70
TOTALS	253	294	509	903	655	820	749	1,130	941	619	6,873

Damages by Mode and Reporting Year (In Dollars)

MODE	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	TOTAL
Air	0	2,853	5,104	4,511,708	9,159	20,512	28,686	6,834	30,312	12,486	4,627,654
Highway (for hire)	3,118,508	3,587,379	2,604,163	3,849,176	3,028,405	3,617,548	4,272,106	7,440,533	5,372,736	4,343,739	41,234,293
Highway (private)	1,661,475	2,701,366	1,713,815	924,980	2,574,211	2,057,017	4,356,545	3,819,373	3,552,533	2,979,889	26,341,204
Railway	1,491,745	1,549,358	3,021,685	11,965,143	1,481,995	2,294,633	7,815,243	6,848,364	5,781,500	2,834,030	45,083,696
Water	201,052	1,252,095	8,009	20,117	6,331	5,270	18,258	17,912	30,364	507,427	2,066,835
Freight Forwarder	0	0	0	0	3,345	405	351	160	0	100	4,361
Other	136,005	223,925	14,439	13,035	182	3,788	9,700	0	5,100	29,365	435,539
TOTALS	6,608,785	9,316,976	7,367,215	21,284,159	7,103,628	7,999,173	16,500,889	18,133,176	14,772,545	10,707,036	119,793,582

RESEARCH AND TECHNOLOGY PROGRAM

The Department of Transportation's hazardous materials research and technology program provides technical support for development, modification, and interpretation of the hazardous materials regulations and for enforcement activities. Research is conducted to find answers to special problems or to address unique safety concerns where the current regulations may not fully provide for technological advances.

Project highlights for 1980 include:

- **RAM Routing Guidelines.** MTB initiated a contract study to develop a set of guidelines for use by state officials in designating highway routes for the safe transportation of radioactive materials (RAM). The guidelines are intended for use by state officials responsible for implementing the Department's RAM highway routing regulations.
- **Hazardous Materials Incidents at Sea.** The Coast Guard initiated three research projects designed to investigate the particular dangers posed by hazardous materials spills which occur at sea. The three projects involve the development of models to predict dense gas dispersion and pool spread, and a study of toxic vapor exposure at sea.
- **Cargo Tank Integrity.** The FHWA completed research into methods of improving cargo tank integrity. The study found that the majority of product loss or leakage in accident situations is attributable to escape from manholes, valves, vents, and other tank closures, and recommended establishment of minimum product retention standards for these areas.
- **Materials and Containers.** MTB conducted a variety of research projects relating to hazardous materials properties and container adequacy, including developing classification criteria for oxidizers, flammable solids, and thermally unstable materials; toxicological and skin corrosion testing; and evaluations of the adequacy as containers of specification drums and pails and plastic, metal, and composite packagings. Conclusions drawn from the research are used to justify changes in the regulations or to validate the existing standards.

BLANK PAGE

OUTSTANDING PROBLEMS

A number of problems persist as impediments to a fully effective hazardous materials transportation safety program. Among these are:

- **Clarity of Regulations.** The hazardous materials transportation safety regulations are an accumulation of nearly 75 years of *ad hoc* growth. This has resulted in a certain amount of confusion in organization and in some areas of vagueness and imprecision. Problems encountered particularly in inspection and enforcement activity have pinpointed the necessity for improvements in the arrangement and accessibility of the regulations. To this end, the Department plans an intensive effort to restructure the text of existing regulations to best address the needs of the regulatory audience. Reorganized standards will be more comprehensible to the regulated industry and, thus, easier both to enforce and comply with.

- **Working Arrangements.** A general criticism of the Department's hazardous materials enforcement activities is that they are fragmented and lack coordination. As the focal point for hazardous materials transportation programs in DOT, MTB has attempted to draw the modal programs together through development and implementation of formal working agreements. MTB has an informal agreement with FHWA's Bureau of Motor Carrier Safety and works cooperatively with FAA although no formal agreements have been established. MTB has initiated discussions with modal administrations preparatory to developing formal working agreements. Implementation of such agreements will prevent gaps in the Federal enforcement program due to inadequate coordination of planning for and execution of inspection activities, improve enforcement coverage of multimodal hazardous materials transportation, and enhance the productivity of the Department's enforcement staff by preventing duplication of effort.

APPENDIX A

RULEMAKING ACTION IN 1980

BEST DOCUMENT AVAILABLE

Rulemaking Publications During 1980

Docket Number and Subject	*Date Published*	*Action*	*Synopsis*
HM-22 Matter Incorporated by Reference	2/14/80 2/28/80	NPRM Final Rule	Continuing regulatory docket to update references to industry trade publications or quasi-regulatory bodies concerning container specifications, testing and other by requirements, pertaining to the shipment and carriage of hazardous materials. Examples of publications include the IMCO Dangerous Goods Code, the ASME Boiler and Pressure Vessel Code, and the Compressed Gas Association's Pamphlet C-6 for visual inspection of cylinders.
HM-36A Elimination of Certain Reporting Requirements	6/16/80 11/6/80 12/8/80	NPRM Final Rule Final Rule (revision)	MTB's analysis of the hazardous materials incident data base indicates that continued reporting of incidents involving certain materials is of minimal value when weighed against the burden placed upon the carriers who are required to prepare and submit written reports.
HM-56 Miscellaneous Changes	12/11/80	Final Rule	This docket was established to change or delete certain incorrect references, to correct certain spelling and editorial errors, and to make minor regulatory changes which will not impose any new restrictions.
HM-118 Expanded Polystyrene Resin	5/22/80 11/10/80	Termination of Docket Termination of Docket (revision)	Proposal was to list and classify polystyrene resin, expandable, containing a flammable liquid or gas, as a flammable solid. Docket HM-159 included this material within its scope.
HM-126A Hazard Identification and Emergency Response Capabilities	5/22/80 6/30/80 7/10/80 11/10/80	Final Rule Notice of public hearing and request for comment, and extension of voluntary compliance date Notice of public hearing and request for comment Final Rule (revision)	Adoption of a numeric identification system for hazardous materials. The numbers must be displayed on shipping papers and containers to improve the capability of emergency response personnel by quick identification of hazards after a spill. Also requires listing each type of organic peroxide in the Hazards Materials Table to enhance response activities associated with the different risks presented by these materials.
HM-126B Improved Descriptions of Hazardous Materials for Emergency Response	5/22/80 11/10/80	Final Rule Final Rule (revision)	To more specifically identify certain hazardous materials to facilitate the assignment of hazard identification numbers and to improve emergency response capabilities. Materials include generic groupings of pesticides and materials identified by an n.o.s. entry in the Hazardous Materials Table.
HM-139 Conversion Exemptions into Regulations of General Applicability	1/[illegible]4/80 3/24/80 7/10/80 7/21/80	Final Rule NPRM Final Rule Final Rule (revision)	Continuing regulatory amendments to eliminate exemptions and make shipping of alternatives available to the general shipping industry.

BEST DOCUMENT AVAILABLE

Rulemaking Publications During 1980—*Continued*

Docket Number and Subject	*Date Published*	*Action*	*Synopsis*
HM-145A Hazardous Waste Materials	5/22/80 7/10/80 11/10/80	Final Rule Notice of public hearing and request for comment Final Rule (revision)	To address the peculiar problems associated with the transportation of hazardous waste materials. This rulemaking is the result of a joint effort by DOT and EPA to carry out the provisions of the Resource Conservation and Recovery Act (RCRA).
HM-145B Hazardous Substances	5/22/80 6/30/80 11/10/80	Final Rule Notice of public hearing and request for comment, and extension of voluntary compliance date Final Rule (revision)	To address the transportation of materials identified by EPA as hazardous substances that may threaten health and safety or property when discharged in certain quantities. This rulemaking is the result of a joint effort by DOT and EPA to carry out the provisions of the Federal Water Pollution Control Act (FWPCA).
HM-152 Radioactive Material by Air	3/27/80	Final Rule	Revision of certain rules to reduce radiation exposure of passengers aircraft.
HM-159 Forbidden Materials	5/22/80 11/10/80	Final Rule Final Rule (revision)	Adds to the Hazardous Material Table specific names of materials considered too dangerous to ship in commercial transportation.
HM-163 Bureau of Explosives Delegation of Authority	5/19/80 10/20/80	Final Rule NPRM	Continuing regulatory amendments to withdraw delegations of authority from the Bureau of Explosives (Assoc. of American Railroads) pertaining to cylinder test apparatus approval; registration of container manufacturer symbol; testing of cigarette lighters; and filing of various reports.
HM-164 Highway Routing of Radioactive Materials	1/31/80	NPRM	This regulation would establish routing for the highway carriage of radioactive materials.
HM-166 Terminations Regulations Considered Unnecessary or	2/28/80 10/16/80 9/11/80 4/14/80 9/18/80 5/19/80 12/8/80	Final Rule Final Rule (revision) Final Rule NPRM Final Rule Final Rule ANPRM	Continuing regulatory amendments to delete obsolete specifications or other regulations; to revise and clarify certain portions of the regulations; to handle petitions for rulemaking considered routine and non-controversial.
HM-168 Hazardous Materials Aboard Aircraft	1/31/80 5/27/80 7/17/80	Final Rule Final Rule Final Rule (correction)	Establishes standards for the safe operation of aircraft carrying certain hazardous materials.
HM-169 Transportation of Radio-active Materials	7/28/80 8/21/80	Final Rule Final Rule (correction)	To revise the domestic requirements for the transport of radioactive materials to make them compatible with the international requirements promulgated by the International Atomic Energy Agency (IAEA).
HM-171 Use of United Nations Shipping Descriptions	5/22/80 6/30/80 7/10/80 11/10/80	Final Rule Notice of public hearing and request for comment, and extension of voluntary compliance date Notice of public hearing and request for comment Final Rule (revision)	To authorize the optional use of United Nations shipping descriptions and identification numbers in place of existing descriptions required for domestic hazardous materials transport. The amendment greatly facilitates the international carriage of hazardous materials previously subject dual requirements.

BEST DOCUMENT AVAILABLE

Rulemaking Publications During 1980

Docket Number and Subject	*Date Published*	*Action*	*Synopsis*
HM-172 Marking and Record Retention for Cylinders	2/14/80	NPRM	Proposed revision and clarification of cylinder marking requirements, deletion of approval for changes to owner markings, user markings, and serial numbers; deletion of submission requirements for cylinder test reports and substitute record retention requirement.
HM-173 Transportation of Wet Electric Storage Batteries	2/28/80	NPRM	Would establish new standards for transportation of wet cell electric storage batteries, and for wet cell battery equipped wheelchairs on passenger-carrying aircraft.
HM-174 Safety Improvement Program for DOT 105 Tank Cars	7/21/80 7/31/80	NPRM NPRM (correction)	Consideration of possible changes to current safety performance standards of DOT 105 tank cars.
HM-175 Tank Safety Improvements: Specifications and Retrofit	7/21/80	ANPRM	Would extend the puncture and thermal protection systems now required for DOT 112 and 114 tank cars to existing DOT 105 tank cars and to other newly constructed tank cars.
HM-176 Aluminum Cylinder Specification	8/14/80 9/4/80	NPRM NPRM (correction)	Development of specifications for aluminum cylinders.

Termination/Transfer of Authority Actions During 1980

Docket Number	*Date*	*Action*	*Exemptions Terminated*	*Petitions for Rulemaking*	*Obsolete Pkg Spec*	*Removal of B of Delegations*			*Petitions for Reconsideration*
						Stg or Filing Rep	*Testing or Witness*	*Approvals*	
HM-139B	1-24-80	Final Rule							6
HM-139C	3-24-80	NPRM	20*						
HM-139C	7-10-80	Final Rule	18						
		Rule							
HM-163D	5-19-80	Final Rule				8	47	25	
HM-163E	10-20-80	NPRM						3*	
HM-166B	2-28-80	Final Rule		7					
HM-166B	10-16-80	Final Rule							1
HM-166C	9-11-80	Final Rule			20				
HM-166D	4-14-80	NPRM		6*					
HM-166D	9-18-80	Final Rule		6					

* Proposed

BEST DOCUMENT AVAILABLE

Rulemaking Projects

Project Number	*Title*	*Synopsis*
118-71	Definition of a Flammabale Solid	Consideration of new standards for classifying a material as a flammable solid.
160-71	Oxidizing Materials Definition, Criteria and Proposed Regulations	Development of new standards for classifying a material as an oxidizing material.
186-72	Organic Peroxide Requirements	Proposed listing and packaging requirements for organic peroxides.
252-77	Fusion Welding of Multi-Unit Car Tanks	Proposals to authorize fusion welding of multi-unit tank car tanks.
263-78	Radiation Exposure to Transport Workers	Consideration of methods which will reduce radiological exposure to transport workers.
278-78	Specification for 55-Gallon Plastic Drums	Proposal to authorize 55-gallon polyethylene drums for specified materials.
281-78	Matches	Revision and simplification of requirements pretaining to transportation of matches.
285-79	Cargo Tank Corrosion	Consideration of the effects of corrosion to the structural integrity of cargo tank.
289-79	Miscellaneous Hazardous Material Communication Regulation	Various proposals relating to hazard communication requirements such as gas odorization and availability of shipping papers.

Rulemaking Projects Coordinated With Modal Administrations

Project Number	*Title*	*Synopsis*
261-78	Operating Procedures for Motor Vehicles	Simplification and recodification of existing operating procedures for carriage of hazardous materials by motor vehicle. (FHWA)
279-78	Develop and Revise Requirements for Explosives by Vessel	Consolidation and revision of standards for the carriage of military and commercial explosives by vessel and adopt UN classification system. (USCG)

APPENDIX B

EXEMPTIONS IN EFFECT DURING 1980

Listed below, in numerical sequence, are the exemptions or special permits that were in effect something during the year 1980. The reason for each issuance is given by a number in the right-hand column which is coded to the reasons shown below:

1. to develop information and gain experience concerning innovative forms of packaging, shipping conditions, or carrier operations;

2. to authorize packaging of similar nature and integrity equivalent to DOT specification containers;

3. to permit one or limited number of shipments of a material for which an amentment of the regulations would be impractical;

4. to permit emergency movement of material in order to prevent risk of life or property; and

5. to permit emergency movement of a material in order to prevent serious economic loss.

Number	*Purpose*	*Reason*
868	Authorizes exceptions to requirements for carrier inspection of manufacturers, vehicle, loading, etc. for class A and B explosives loaded by Department of Defense shippers in non-DOT containers.	2
970	Authorizes shipment of a flammable poisonous gas in DOT Specification 3AA cylinders.	1
1479	Authorizes shipment of liquefied fluorine and mixture of liquefied fluorine and oxygen classed as a nonflammable gas in specially designed non-DOT specification cargo tanks.	1
1862	Authorzies shipment of nitrogen in hydraulic accumulators.	1
2000	Authorizes shipment of flammable liquefied compressed gases in non-DOT specification portable tanks or DOT specifiction 4L cylinders.	2
2051	Authorizes shipment of non-flammable and non-poisonous refrigerant gases in non-DOT cylinders.	2
2136	Authorizes shipment of radioactive materials with explosives in Department of Defense containers packaged and loaded by the Department of Defense without carrier inspection.	2
2326	Authorizes shipment of 25 lbs. or less of pyrocore powders (Class A explosives) to be packaged in DOT specification 12H fiberboard box.	1
2462	Authorizes shipment of a class A explosive in glass bottles overpacked in wooden boxes.	2
2582	Authorizes shipment of a nonflammable gas in a non-DOT specification cylinder.	1
2587	Authorizes shipment of liquid oxygen in non-DOT specification cargo tanks.	2
2675	Authorizes shipment of certain nonflammable gases in non-DOT specification cylinders.	2
2708	Authorzies shipment of a flammable liquefied compressed gas in non-DOT specification cargo tanks.	1
2709	Authorizes shipment of a Class A liquid explosive in non-DOT specification containers.	1
2732	Authorizes shipment of high explosives in non-DOT packagings.	2
2787	Authorizes shipment of certain non-flammable compressed gas in non-DOT specification packaging.	2

Number	*Purpose*	*Reason*
2805	Authorizes shipment of a flammable gas in non-DOT insulated cargo tanks.	2
2913	Authorizes use of non-DOT specification cylinders for certain nonliquefied compressed gases (flammable and non flammable).	2
2973	Authorizes use of vented DOT Specification 37/M2S or 2SL Composite Container and a DOT Specification MC-302 and MC-303 cargo tank for a certain flammable liquids.	1
2981	Authorizes transport of certain Class A and Class B explosives in packagnings not provided in 49 CFR.	1
3004	Authorizes use of non-DOT specification cylinder for certain flammable, and non-flammable compressed gases.	
3051	Authorizes shipment of nitrogen and oxygen in non-DOT specification stainless steel cylinders.	2
3095	Authorizes use of a non-DOT specification cargo tank for certain corrosive and flammable liquids.	2
3109	Authorizes use of non-DOT pressure vessels for shipment of a nonflammable, nonliquiefied compressed gas.	3
3121	Authorizes use of non-DOT specification cargo tank for the transportation of a certain Class A poisonous liquid.	2
3126	Authorizes transport of certain class A explosive in packaging not provided for in 49 CFR.	2
3128	Authorizes the use of a non-DOT cylinder for the transportation of a Class C explosive and a liquefied nonflammable gas.	2
3134	Authorizes use jof a DOT-103W or 111A100W1 tank car having an insulated jacket constructed or reinforced polyester resin for carriage of a corrosive liquid.	2
3142	Authorizes shipment of cylinders containing nonflammable compressed gases from which a controlled flow of gas is released to a leak calibration apparatus.	3
3187	Authoirzes shipment of flammable liquids or organic peroxides in various packagings.	2
3193	Authorizes use of DOT Specification packaging not presently prescribed for shipment of flammable and nonflammable liquefied compressed gases.	3
3216	Authorizes use of a proposed DOT Specification tank car tank for carriage of certain flammable compressed gases.	1
3293	Authorize sodium acetylide in suspension in xylene to by transported in certain flammable solid packagings.	2
3302	Authorizes use of non-DOT specification sampling bottles (cylinders) for shipment of certain nonflammable gases.	2
3330	Authorizes use of packaging not presently prescribed in Hazardous Materials Regulations for certain flammable solid material.	2
3353	Authorizes use of portable tanks for shipment of certain oxidizing material.	2
3367	Authorizes use of non-DOT specification insulated cargo tanks for shipment of liquefied hydrogen.	2
3415	Authorizes shipment of rocket motors, containing certain Class A or Class B explosives, without overpacking.	3
3549	Authorizes shipment of certain Class A explosives in special, non-DOT specification packaging.	2
3563	Authorizes use of non-DOT cylinders for shipment of a nonflammable compressed gas.	2
3569	Authorizes use of non-DOT specification cylinder for shipment of a liquid oxidizer.	2

Number	Purpose	Reason
3600	Authorizes shipment of Lance rocket engines in specific configurations which contain Class B and Class C explosives.	3
3606	Authorizes use of a non-DOT specification container for shipment of a nonflammable comprssed gas.	2
3630	Authorizes use of a DOT 33A, polystyrene case to contain four 5-pint glass bottles of nitric acid.	2
3648	Authorizes the transportation of certain cryogenic liquids in non-DOT specification vacuum insulated cargo tanks constructed according to Section VIII of the ASME Code.	5
3667	Authorizes use of DOT Specification MC 330 cargo tank for shipment of a flammable, liquefied compressed gas.	2
3737	Authorizes shipments of explosives having improper markings.	2
3768	Authorizes use of MC-304 MC-307 and MC-312 cargo tanks for shipment of certain flammable and corrosive liquids.	2
3941	Authorizes shipment of ammonium perchlorate in non-DOT specification container's.	1
3992	Authorizes shipment of hydrogen chloride in a DOT specification 105A600W tank car.	2
4007	Authorizes use of non-DOT Specification portable tanks for shipment of certain flammable liquids.	2
4039	Authorizes shipment of liquefied hydrogen in a non-DOT specification portable tank.	2
4052	Authorizes shipment of an aerosol formulation pressurized with nitrogen in a DOT specification 39 container.	2
4108	Authorizes shipment of certain nonflammable gases in non-DOT specification cargo tanks.	2
4177	Authorizes use of a non-DOT pressure vessel containing a nonflammable, nonliquefied gas.	3
4242	Authorizes use of a non-DOT pressure vessel containing a certain pyroforic mixture.	2
4262	Authorizes shipment of charged oil well jet perforating guns with initiators attached. Contains certain class A explosives.	2
4282	Authorizes useof privately owned and specially designed cargo tanks for a class B explosive and oxidizer.	2
4291	Authorizes use of a portable tank for the shipment of a certain oxidizer.	2
4338	Authorizes use of DOT specification 3AA2015 cylinder and DOT Specification 51 portable tanks for shipment of corrosive.	2
4354	Authorizes the shipment of chloroformates in a polyethylene drum as additional packaging.	2
4390	Authorizes the use of non-DOT specification glass inner packaging overpacked in a form fitting polystyrene case for the transportation of certain flammable, corrosive, poison, and oxidizing materials.	1
4399	Authorizes the use of non-DOT specification cargo tanks for shipment of a certain flammable gas.	2
4400	Authorizes the shipment of liquefied hydrogen and pressurized liquid helium in non-DOT specification insulated cargo tanks.	2
4404	Authorizes the use of a non-DOT specification cargo tank for the shipment of a flammable gas.	2
4453	Authorizes use of non-DOT specification bulk, hopper-type tank for shipment of an oxidizer.	2
4459	Authorizes the use of non-DOT specification cylinder for shipment of flammable gasses, class A poisons, class B poisons and mixtures thereof.	2

Number	Purpose	Reason
4460	Authorizes metallic sodium to be purchased in a DOT specification 51, portable tank.	2
4490	Authorizes the use of a non-DOT specification cargo tank for the transportation of a flammable gas.	2
4497	Authorizes use of non-DOT specifications cargo tanks for shipment of certain nonflammable gasses.	2
4554	Authorizes use fo a non-DOT specification cargo tank for shipment of a flammable gas.	2
4575	Authorizes use of a non-DOT specification cargo tank for shipment of certain liquefied compressed gases.	2
4588	Authorizes the use of packaging not presently prescribed for certain high explosives.	2
4600	Authorizes the shipment of hydrogen bromide (anhydrous) in DOT specification 51 type portable tanks with a design pressure of 525 psig.	2
4607	Authorizes shipment of plastic coated bottles containing aerosol formulations.	2
4612	Authorizes shipment of small quantities of hazardous materials in inside glass bottles overpacked in metal cans further overpacked in 12B fiberboard boxes.	2
4631	Authorizes use of non-DOT hopper-type tank trucks and cargo tank trailers for shipment of an oxidizing material and a nonflammable compressed gas.	1
4661	Authorizes the transportation of butyl lithium in petroleum solvent in 4BA240 cylinder with alternative retest procedures.	2
4684	Authorizes use of a packaging not presently prescribed for a flammable solid.	1
4698	Authorizes use of a non-DOT specification container for shipment of a certain nonflammable compressed gas.	2
4717	Authorizes shipment of ethylene or ethane in non-DOT specification insulated tank car tanks.	2
4719	Authorize shipment of certain compressed gases not listed in 49 CFR 173.314 and 173.315, in DOT specification cargo tanks and tank cars.	2
4726	Authorizes the transport or certain liquid metal fluorides in cylinders constructed of monel.	2
4734	Authorizes use of modified DOT Specification MC-331 cargo tank for the shipment of certain flammable liquids and corrosive materials.	2
4760	Authorizes use of a non-DOT specification cargo tank for shipment of a flammable gas.	2
4790	Authorizes the use of non-DOT inside containers overpacked in DOT Specification 12B fiberboard box for shipment of an irritating material.	2
4803	Authorizes the use of a non-DOT specification cargo tank for the shipment of corrosive liquid.	1
4844	Authorizes the use of non-DOT specification foreign made steel cylinders for shipment of certain nonflammable gases.	2
4845	Authorizes use of non-DOT specification steel cylinders for shipment of a nonflammable, nonliquefied compressed.	2
4850	Authorizes the shipment of flexible linear shaped charges, metal clad, in 100-ft. of a high explosive, classed as a class C explosive.	1
4884	Authorizes shipment of gas-calibration mixture of compressed gases in stainless steel cylinders.	2
4932	Authorizes shipment of tear gas in packagings not presently prescribed in the regulations.	2
4990	Authorize use of AAR specification 206W tank car for transportation of certain flammable liquids.	2

Number	Purpose	Reason
5022	Authorizes shipment of certain class A and class B explosives in temperature controlled equipment.	1
5038	Authorizes the shipment of dimethyldichlorosilane, trichlorosilane, and silicon tetrachloride in non-DOT specification stainless steel cylinders.	2
5062	Authorizes transport of a nonflammable compressed gas in cargo tanks.	2
5112	Authorzes use of a specialized container for shipment of a Class A explosive.	1
5117	Authorizes inside composite glass vials/ fiber tubes packaging not presently prescribed for certain Class B poisons overpacked in fiberboard boxes.	1
5122	Authorizes shipment of a nonflammable compressed gas in DOT specification 106A500–X and 110A500–W multi-unit tank car tanks.	2
5136	Authorizes use of DOT specification 4AA480 cylinders for certain liquefied and non-liquefied flammable and nonflammable gases.	2
5179	Authorizes use of cylinders not marked to DOT specification for shipment of certain flammable and nonflammable compressed gases.	2
5186	Authorizes shipment of a flammable liquefied compressed gas in a non-DOT specification cargo tank.	1
5188	Authorizes shipments of radioactive materials and non-liquefied compressed gases in packaging not Regulations.	2
5196	Authorizes use of a non-DOT specification cargo tank for shipment of a flammable gas.	2
5200	Authorizes use of DOT specification packings not presently prescribed in the Hazardous Materials Regulations.	2
5206	Authorizes shipment of an oxidizing material in privately operated bulk hopper-type units.	2
5232	Authorizes shipment of certain flammable and nonflammable liquefied compressed gases in tank cars.	2
5243	Authorizes specific packaging for the tailless MS connector.	1
5248	Authorizes shipment of a certain quantity of polonium-210 in any DOT approved outer packaging.	2
5263	Authorizes the transport of a corrosive liquid in a non—DOT stainless steel pressure vessel.	2
5315	Authorizes transport of a rocket engine containing a Class A explosive contained in a specially designed device.	2
5322	Authorizes use of a non-DOT specification cargo tank for transportation of certain flammable gases.	1
5365	Authorizes the use of non-DOT specification polyurethane insulated cargo tanks for the transportation of a flammable cryogenic liquid.	1
5372	Authorizes shipment of certain compressed gases in DOT specification 3T cyliners.	2
5403	Authorizes the use of cargo tanks, meeting the requirements of DOT Specification MC–312 with certain exceptions, in support of oil well acidizing and industrial cleaning operations.	1
5413	Authorizes shipment of a flammable gas in non-DOT specification cargo tanks.	1
5414	Authorizes the use of a non-DOT specification portable tank for shipment of a flammable gas.	2
5454	Authorizes shipment of sulfur hexafluoride in DOT specification cylinders 3A1800, 3AA1800,	1
5456	Authorizes the use of non-DOT specification packaging for certain Poison B liquids, liquid corrosive materials, and oxidizers.	1

Number	*Purpose*	*Reason*
5485	Authorizes the shipment of liquid helium in non-DOT specification cargo tank.	1
5493	Authorizes shipment of hydrogen sulfide in certain specifically identified tank cars.	2
5520	Authorizes the use of DOT-57 portable tanks for the transportation of certain corrosive liquids.	1
5526	Authorizes non-DOT specification polystryrene packing for shipment of flammable liquids, liquid organic peroxides, liquid oxidizers, corrosive liquids, or poison B liquids.	2
5557	Authorizes use of non-DOT specification containers for shipment of certain explosives, which exceed prescribed weight limits.	1
5600	Authorizes shipment of certain flammable and nonflammable gases, flammable or corrosive gases in a cylinder made to DOT 3A specifications except monel metal may be used rather than steel.	2
5604	Authorizes the use of insulated non-DOT specification portable tanks for a nonflammable compressed gas.	1
5615	Authorizes transportation or carbolic acid and those corrosive liquids authorized for packaging in DOT specification 1D or 1K boxed glass carboys.	2
5634	Authorizes shipment of certain flammable liquids in non-DOT specification portable tanks.	1
5643	Authorizes shipment of a nonflammable gas in non-DOT specification portable tanks.	1
5649	Authorizes use of non-DOT specification packaging for an oxidizer.	1
5652	Authorizes use of a non-DOT specification portable tank for shipment of a nonflammable compressed gas and a flammable liquid.	1
5662	Authorizes use of a DOT 51 portable tank for certain Class B poisonous liquids.	2
5668	Authorizes shipment of certain flammable and combustible liquids in portable tanks.	1
5701	Authorizes use of a non-DOT cargo tank for a certain oxidizer.	1
5704	Authorizes the transportation of certain Class A and Class B explosives in prescribed non-DOT specification steel drums.	2
5716	Authorizes use of non-DOT specification tank car tanks for shipment of a certain nonflammable gas.	2
5736	Authorizes the use of non-DOT specification tank cars for the transportation of a flammalbe gas.	2
5746	Authorizes shipment of contaminated missile components or detanking pumps containing a certain flammable liquid and a corrosive liquid.	1
5749	Authorizes an insulated nickel steel DOT MC-331 cargo tank for a certain flammable gas.	2
5767	Authorizes the use of a non-DOT specification steel portable tank for certain corrosive materials.	1
5777	Authorizes shipment of certain propelling charges with primer or igniter, or both; class B explosives.	1
5778	Authorizes use of a DOT 39 steel cyliner for a certain flammable gas.	
5792	Authorizes the shipment of liquefied flammable gas in non-DOT specification tank cars.	2
5820	Authorizes shipment of nonflammable gases in non-DOT portable tanks.	2
5825	Authorizes the use of a non-DOT specification cargo tank for shipment of a flammable, liquefied, compressed gas.	1
5852	Authorizes use of a non-DOT specification cargo tank for a certain flammable liquefied compressed gas.	1
5854	Authorizes the shipment of certain flammable and combustible liquds in intermodal portable tanks.	2

Number	*Purpose*	*Reason*
5861	Authorizes use of a stainless steel 4DS cylinder other than that prescribed for service of a nonflammable compressed gas.	2
5876	Authorizes several alternative packaging methods to those prescribed in the regulations for a Class B poison.	2
5891	Authorizes the transport of high explosives in quantities greater than those now authorized.	2
5895	Authorizes use of non-DOT specification inner container overpacked in a DOT 12H fiberboard box, or a wooden box for class C explosive.	1
5912	Authorizes use of non-DOT specification portable tanks for flammable, corrosive and combustible liquids.	2
5923	Authorizes transport of certain gases in DOT specification 106A500X and 110A500–W multi-unti tank cars for certain flammable and nonflammable gases.	1
5944	Authorizes the use of a non-DOT specification cargo tank for flammable liquid and compressed gas.	1
5945	Authorizes the use of a non-DOT specification cargo tank for a nonflammable compressed gas.	1
5948	Authorizes the shipment of radioactive waste materials in ATMX 500 or 600 rail cars.	2
5951	Authorizes the transport of chlorine or sulphur dioxide in DOT specification 106 type tanks.	2
5959	Authorizes shipment of liquefied ethylene in non-DOT specification cargo tanks.	1
5967	Authorizes the use of non-DOT specification cylinder for a nonflammable gas.	1
5972	Authorizes the use of non-DOT specification stainless steel portable tanks for the transportation of certain flammable and combustible liquids.	1
5995	Authorizes the use of a removable head polyethylene container for certain organic peroxides.	2
6007	Authorizes the transportation of radioactive devices containing polonium–210.	2
6009	Authorizes a DOT specification 51 portable tank constructed of monel instead of steel for a certain corrosive material.	2
6016	Authorizes shipment of liquid oxygen, nitrogen, and argon in non-DOT specification portable tanks.	1
6039	Authorizes use of non-DOT specification insulated cargo tanks for a flammable compressed gas.	1
6045	Authorizes use of DOT Specificatin MC–312 cargo tanks for a flammable liquid.	1
6064	Authorizes the transport of a high explosive in packagings not presently prescribed.	
6066	Authorizes use of non-DOT specification portable tanks for certain flammable and combustible liquids.	2
6071	Authorizes use of non-DOT specification pressure vessels for a nonflammable compressed gas.	2
6080	Authorizes the use of manifolded cylinders for a class A poison.	2
6092	Authorizes certain concentrations of nitric acid or perchloric acid to be transported in glass bottles overpacked in DOT Specification 33A polystyrene cases.	2
6111	Authorizes the use of non-DOT specification cargo tank for shipment of a flammable gas.	1
6113	Authorizes use of a non-DOT specification cargo tank for certain flammable gases.	1
6117	Authorizes the transport of hydrogen sulfide in certain single unit tank cars.	1
6121	Authorizes use of DOT Specification 115A60W1 and 115A60W6 tank cars for a certain flammable liquid.	2

Number	Purpose	Reason
6122	Authorizes use of non-DOT packagings for certain dry oxiding materials.	2
6124	Authorizes use of non-DOT specification fiberboard box for Class A, class B and class C explosives.	2
6126	Authorizes shipment of chloracetyl chloride in DOT specification 6D/2/S of 2SL composite packaging.	1
6128	Authorizes use of non-DOT specification intermodal portable tanks for certain hazardous materials.	1
6151	Authorizes shipment of certain liquefied and non-liquefied flammable and nonflammable gases in DOT specification 39 aluminum cylinders without a safety relief device.	2
6154	Authorizes the transport for certain flammable solids in a modified DOT 12B fiberboard box.	2
6170	Authorizes use of a non-DOT specification cylinde of a nonflammable, nonliquefied compressed gas.	2
6173	Authorizes the transportation of a flammable gas in non-DOT specification insulated aluminum cargo tanks.	1
6184	Authorizes the transportation of a nonflammable gas in non-DOT specification portable tanks.	2
6197	Authorizes use of a non-DOT cargo tank for certain flammable gases.	1
6205	Authorizes the use of a non-DOT specification vacuum insulated cargo tank for the transportation of certain flammable gases.	2
6215	Authorizes use of insulated non-DOT cargo tanks for a nonflammable gas.	2
6218	Authorizes shipment of argon or nitrogen pressurized liquid in insulated non-DOT cargo tanks.	2
6225	Authorizes shipment of bromine in packaging not presently prescribed in the Hazardous Materials Regulation for corrosive material (liquid).	2
6228	Authorizes use of DOT 8 or DOT 8 AL cylinders which are manifolded for a flammable compressed gas.	1
6231	Authorizes shipment of liquefied flammable gas in insulated non-DOT specification tank cars.	2
6232	Authorizes shipment of a nonflammable gas, Class C explosive, and a flammable solid to be packed in the same outside package.	2
6234	Authorizes use of additional DOT containers for certain oxidizing materials.	2
6243	Authorizes the use of a non-DOT specification vacuum insulated cargo tank for the transportation of carbon monoxide, a flammable compressed gas.	2
6250	Authorizes shipment of explosives in non-DOT packages (Partially dis-assembled aircraft with explosive components, ejection seats and canopy related devices).	1
6253	Authorizes shipment of various hazardous materials in non-DOT specification portable tanks.	2
6263	Authorizes use of a non-DOT container for certain nonflammable gases.	2
6267	Authorizes the transportation of certain oxidizers in non-DOT specification double-faced fiberboard boxes.	2
6293	Authorizes shipment of specific corrosive material in DOT stainless steel cargo tanks.	2
6296	Authorizes additional bag packagings for the transportation of certain Class B poisons in DOT 44D multi-wall paper bags.	2
6299	Authorizes use of non-DOT portable tanks for certain nonflammable gases.	
6305	Authorizes the shipment of Class C explosives in DOT-23F35 fiberboard boxes.	

Number	Purpose	Reason
6309	Authorizes use of non-DOT specification portable tank to transport nonpoisonous, nonflammable compressed gases.	2
6325	Authorizes the transportation of oxidizers in containers not presently prescribed in the Hazardous Materials Regulations.	2
6333	Authorizes the transportation of certain corrosive liquids in non-DOT specification type MC-312 glass lined cargo tanks.	2
6334	Authorizes use of DOT Specification MC-312, MC-330, or MC-331 cargo tanks for an oxidizer.	2
6348	Authorizes the use of a single-trip, molded, open head polyethylene container without overpack, not to exceed 6 gallon capacity for certain dry oxidizing materials.	2
6349	Authorizes use of non-DOT specification portable tanks for certain flammable and nonflammable gases.	1
6369	Authorizes use of DOT specification 105A400W, 112A400W, 114A400W, 120A400W, and proposed 120A400W tank car tanks for certain class B poisonous liquids.	2
6392	Authorizes use of non-DOT specification vacuum insulted tank car tanks for a liquefied flammable compressed gas.	1
6397	Authorizes the shipment of certain Class B poisonous liquids in DOT-34 containers.	2
6398	Authorities use of non-DOT specification intermodal portable tanks for flammable liquids.	2
6403	Authorizes shipment of a flammable gas in a non-DOT cargo tank.	1
6416	Authorizes shipment of monochloro-difluoromethane in a prescribed tank car having a safety relief valve with an altered setting.	2
6418	Authorizes use of DOT Specification MC-303, MC-304, MC-306, MC-307, MC-310, or MC-312 steel cargo tanks for Class B poisonous liquids.	1
6432	Authorizes the use of non-DOT specification paper bags for a poisonous B solid material.	2
6442	Authorizes the transport of a 155 mm high explosive projectile containing either a corrosive or flammable liquid in a metal cannister with an inner polyethylene container.	2
6443	Authorizes the use of DOT spec. cargo tanks not presently authorized for a flammable gas.	1
6452	Authorizes the shipment of certain organic peroxides in one pound bags in a fiberboard box.	2
6453	Authorities use of a non-refillable, welded steel cylinder built in compliance with DOT 39 with certain nonflammable compressed gases.	1
6464	Authorizes the transportation of certain flammable gases in non-DOT specification cargo tanks.	1
6466	Authorizes shipment of detonating primers not meeting the requirements of Section 173.68(a)(1).	2
6468	Authorizes use of insulated DOT Specification MC-304 cargo tanks for a certain Class B poison.	2
6472	Authorizes use of non-DOT specification polystyrene containers for certain Class B explosives.	2
6477	Authorizes non-DOT packaging for a Class A explosive.	2
6484	Authorizes the transport of mixtures of nitromethane and various solvents in MC-307 or MC-312 tank motor vehicles.	2
6497	Authorizes use of a modified DOT 56 portable tank for Class B poison solids.	2
6498	Authorize the use of non-DOT specification aluminum cylinders for the transportation of certain liquefied and nonliquefied compressed gases, and other hazardous materials.	1
6500	Authorizes use of a non-DOT stainless steel portable tank for a flammable liquid.	2
6501	Authorizes the transport of liquid high explosives in packagings not presently authorized.	2

Number	Purpose	Reason
6517	Authorizes use of a non-DOT steel cylinder comparable to DOT 4BW for the shipment of acetylene.	2
6518	Authorizes the shipment of specified pyrophoric liquids and solids, water reactive solids and certain other flammable liquids in steel portable tanks.	2
6523	Authorizes the transport of certain oxidizers, n.o.s., in packagings not authorized in 49 CFR 173.154.	2
6526	Authorizes the transportation of Poison B liquids in unauthorized DOT specification cylinders.	2
6530	Authorizes shipment of hydrogen and mixtures of hydrogen with helium, argon or nitrogen in certain cyliners filled to 110% of its marked service pressure.	2
6531	Authorize use of a non-DOT pressure vessel for a nonflammable compressed gas.	2
6536	Authorize the shipment of certain flammable and nonflammable gases in cargo tanks.	1
6538	Authorize the use of non-DOT specification inside nonrefillable metal container for the transportation of a certain flammable gas.	2
6543	Authorize the shipment of certain corrosive and flammable liquids in non-DOT specification stainless steel cylinders.	2
6545	Authorize use of a non-DOT specification container for a flammable gas.	2
6554	Authorizes packaging not presently provided for in the HMR for certain dry oxidizing materials.	1
6556	Authorize use of a non-DOT specification single compartment portable tank for a flammable liquid.	2
6557	Authorizes deviation from the requirements of the inspector's report for DOT 3A, 3AA, and 4B cylinders transporting carbon dioxide and monobromotrifluoromethane.	1
6563	Authorizes shipment of certain nonflammable gases in non-DOT specification cylinders.	2
6564	Authorizes shipment of certain flammable liquids in non-DOT specification portable tanks.	2
6569	Authorizes use of non-DOT specification portable tanks for certain flammable liquids.	2
6571	Authorizes use of a non-DOT specification insulated cargo tank for certain flammable gases.	1
6583	Authorizes shipment of a corrosive material in a specification portable tank.	1
6589	Authorizes transportation of compressed air, a nonflammable gas, non-DOT specification cyliners.	1
6598	Authorizes use of a DOT 6D cylindrical steel overpack with a non-DOT inner container for a certain corrosive liquid.	2
6602	Authorizes use of DOT MC-331 cargo tanks and DOT 105A500W or 106A500X tank car tanks for certain corrosive liquids and nonflammable compressed gases.	1
6606	Authorizes the shipment of diethyl chlorophosphate in specially prescribed packaging.	1
6607	Authorizes a preformed expanded polystyrene inner pack, overpacked in a fiberboard box not provided for in the regulations for a certain oxidizing material.	1
6610	Authorizes shipment of an organic peroxide liquid or solution in non-DOT specification 111A100W6 tank cars and MC-307 cargo tanks.	1
6611	Authorizes use of a non-DOT portable tank for a nonflammable gas.	1
6614	Authorizes the transportation of certain corrosive liquids in non-DOT specification polyethylene bottles.	1

Number	*Purpose*	*Reason*
6614	Authorizes the transportation of certain corrosive liquids in non-DOT specification polyethylene bottles.	1
6616	Authorizes the use of non-DOT specification pressure vessels for the transportation of nonflammable compressed gases.	2
6618	Authorizes shipment of a class B poison in an insulated, MC-312 cargo tank.	2
6626	Authorizes use of DOT 3A or 3AA cylinders and ICC-3, 3A, or 3AA cylinders for certain Compressed gases. Containers are over 35 years old.	1
6629	Authorizes the use of a modified DOT Specification 4B cyliner for the transportation of gases or mixtures of gases, or a non-hazardous material and a gas.	2
6632	Authorizes the use of removable-head polyethylene containers for the transportation of certain oxidizing materials.	1
6637	Authorizes the use of non-DOT polyethylene drums in the transportation of specified corrosive liquids, Class B poisonous liquids, flammable liquids, organic peroxides and oxidizers.	1
6651	Authorizes one time reuse of the involved single-trip containers of certain class B poisonous liquids.	2
6652	Authorizes use of glass filament wound non-DOT specification cylinder for certain compressed gases.	1
6653	Authorizes shipment of an insecticide or a corrosive materials in highly specialized inner and outer containers	1
6657	Provides for use of specified cylinders having an age over 35 years for certain nonliquefied compressed gases.	1
6658	Authorizes use of a non-DOT container for a certain class A explosive.	4
6668	Authorizes shipment of liquid oxygen in non-DOT cylinders.	1
6670	Authorizes shipment of a certain nonliquefied nonflammable compressed gas in DOT cylinders.	1
6672	Authorizes use of non-DOT cylinders for shipment of certain non-liquefied compressed gases.	
6675	Authorizes a compressed gas to be packaged in tandem mounted DOT MC-31 cargo tanks.	1
6686	Authorizes use of a modified DOT-39 steel cylinder for a certain flammable gas.	1
6691	Authorizes the use of DOT Specification 3A or 3AA cylinders over 35 years old which can be retested every 10 years for the transportation of certain flammable and nonflammable gases.	1
6694	Authorizes use of non-DOT specification portable tanks for a nonflammable compressed gas.	2
6695	Authorizes the use of a non-DOT specification portable tank for a certain nonflammable compressed gas.	2
6699	Authorizes use of a DOT 111A100W tank car tank insulated with urethane foam with an elastometric coating for a corrosive liquid.	1
6700	Authorizes the manufacture, marking, and sale of non-DOT specification polyethylene drums for the transportation of corrosive liquids.	1
6702	Authorizes use of packages not currently authorized in the Hazardous Materials Regulations for certain corrosive liquids.	2
6704	Authorizes use of non-DOT cargo tanks for certain corrosive liquids.	2
6712	Authorizes the shipment of certain gases in cylinders over 35 years old.	2

Number	Purpose	Reason
6720	Authorizes the use of non-DOT specification intermodal portable tanks for the transportation certain hazardous materials.	2
6724	Authorizes shipment of caseless ammunition (Class C explosives) in a fiberboard box.	1
6726	Authorizes use of non-DOT polyethylene containers for corrosive liquids and an oxidizer.	1
6731	Authorizes packaging not currently specified for a M72E1 simulant chemical agent identification training set.	1
6735	Authorizes shipment of a corrosive liquid in non-DOT specification cylinders.	1
6738	Authorizes shipment of a flammable gas in non-DOT specification cargo tanks.	
6743	Authorizes shipment of nitro carbo nitrate, slurry, in a DOT Specification 56 portable tank.	
6746	Authorizes the shipment of anhydrous ammonia, a nonflammable gas, in modified DOT Specification MC-331 portable tanks.	1
6751	Authorizes use of non-DOT specification filberglass reinforced plastic cargo tanks for certain liquids.	1
6752	Authorzies use of DOT specification 3A2400 cylinders forming part of a tube trailer for a liquefied flammable compressed gas.	1
6754	Authorizes use of a non-DOT specification container for a nonflammable compressed gas.	1
6755	Authorizes shipment of liquid argon, nitrogen, and oxygen in non-DOT specification cargo tanks.	1
6757	Authorizes shipment of an oxidizer in a non-DOT specification portable tank where a cargo tank is permitted.	2
6758	Authorizes the shipment of liquid hazardous materials in five gallon capacity removable head drums.	1
6759	Authorizes shipment of Class A or B explosives in an IME 22 container or compartment on the same vehicle with non-mass detonating blasting caps.	1
6760	Authorizes the use of portable tanks equipped with bottom outlest for unloading purposes for the transportation of certain Class B poisonous liquids.	1
6762	Authorizes the transportation of certain corrosive and flammable liquids in plastic inside packaging and fiberboard outside packaging.	1
6763	Authorizes use of non-DOT specification packaging for certain oxidizers.	
6765	Authoeizes the use of non-DOT specification portable tanks for the transportation of a flammable and a nonflammable gas.	1
6766	Authorizes use of DOT MC-311 and MC-312 cargo tanks for a corrosive liquid.	2
6768	Authorizes shipment of a flammable gas in non-DOT specification vacuum insulated cargo tanks.	1
6769	Authorizes transport of trifluoromethane in DOT tank cars and cargo tanks.	2
6772	Authorizes the transport of limited quantities of waste flammable liquids, poisonous liquids, and corrosive liquids in inside containers overpacked and cushioned in a 55-gallon DOT 17H steel drum.	1
6773	Authorizes a compressed gas to be trasnsported in a DOT tank car.	1
6774	Authorizes use on non-DOT specification cylinders for shipment of nonflammable gases.	2
6787	Authorizes use of DOT Specification 34 polyethylene drum for certain Class B poisonous liquids, organic peroxides, and corrosive liquids.	1

Number	*Purpose*	*Reason*
6790	Authorizes use of a cargo tank made from non-metallic materials for certain corrosive liquids.	1
6793	Authorizes the use of non-DOT specification portable tanks, for shipment of various hazardous materials.	2
6794	Authorizes the tank truck shipments of certain Class B poisonous liquids.	1
6798	Authorizes a DOT Specification 56 portable tank and a modified DOT Specification 56 portable tank for the transportation of an oxidizing material.	1
6800	Authorizes use of a non-DOT specification 50- and 50-gallon polyethylene Specificatin 34 type packagin for certain hazardous materials.	1
6801	Authorize use of a one-gallon glass bottle packed in a DOT 12B fiberboard box for certain flammable liquids.	1
6802	Authorizes the transportation of liquefied argon, liquefied nitrogen, and liquefied oxygen in non-DOT specification cargo tanks.	1
6805	Authorizes use of DOT 3AAX steel cylinders for a flammable compressed gas mixture.	1
6806	Authorize shipment of a flammable gas by passenger-carrying aircraft.	1
6810	Authorizes shipment of a nonliquefied nonflammable compressed gas in seamless steel tanks (tubes) made in compliance with DOT 107A except they are not mounted on a rail car.	1
6811	Authorizes use of a non-DOT specification cylinder for a nonflammable compressed gas.	2
6815	Authorizes shipment of a Poison B in a DOT Specification MC-312 cargo tank.	1
6816	Authorizes shipment of a hybrid missile, described as rocket ammunition with explosive projectile in packaging prescribed in 173.57(a).	1
6820	Authorizes sodium dichloroisocyanurate, dry, containing more than 39% available chlorine to be transported in 12A or 12B fiberboard boxes as an overpack.	2
6824	Authorizes packagings not provided for in the Hazardous Materials Regulations for certain oxidizing materials.	2
6825	Authorizes the transportation of a liquefied flammable compressed gas in non-DOT specification tank cars.	1
6828	Authorizes use of inside glass bottles packed in a fiberboard box for certain corrosive materials.	1
6834	Authorizes use of DOT Specification 5 drums for a certain corrosive liquid.	
6844	Authorizes use of non-DOT specification 275-gallon "Dypak" single-trip polyethylene container overpacked in a plywood box for the transportation of a certain corrosive liquid.	1
6847	Authorize use of a non-DOT specification steel portable tank for certain class B poisonous materials.	2
6858	Authorizes the use of non-DOT specification portable tanks for the transportation of certain flammable, corrosive combustible, and Class B poison liquids.	2
6859	Authorizes non-DOT specification packaging for a nonflammable compressed gas.	
6861	Authorizes a DOT Specification 21P/2SL or 2U composite container for the transportation of certain class A explosives.	2
6864	Authorizes the use of a non-DOT specification portable tank for the transportation of certain flammable liquids.	2
6870	Authorizes the loading of packages of radioactive materials with separation distances from areas occuped by persons less than those prescribed in Section 177.842(b).	1

Number	*Purpose*	*Reason*
6874	Authorizes the transportation of sodium and potassium cyanides in non-DOT specification wooden boxes.	1
6883	Authorizes transportation of certain hazardous materials in non-DOT specification 55-gallon polyethylene Specification 34 type packaging.	1
6890	Authorizes transport of an explosive severance system consisting of linear segments which may contain up to 79 grams of hexanitrostilbene (class C explosive).	2
6894	Authorizes use of a non-DOT pressure vessel assembly containing a nonliquefied, nonflammable compressed gas.	1
6895	Authorizes shipment of a flammable liquid in DOT specification packaging incorporating certain changes not presently authorized in the Hazardous Materials Regulations.	1
6898	Authorizes shipment of a flammable liquid in DOT specification packaging incorporating certain changed not presently authorized in the Hazardous Materials Regulations.	1
6901	Authorizes use of reconditioned DOT specification 17E steel drums for certain Class B poisonous solids.	1
6902	Authorizes shipment of anhydrous hydrogen bromide in a modified DOT specification 110A800W multi-unit tank car tank.	1
6904	Authorizes packagings not currently provided for in the Hazardous Materials Regulations for a corrosive material.	1
6908	Authorizes certain variances from the specifications for DOT specification 39 cylinder for certain nonflammable gases.	2
6913	Authorizes the transportation of vinyl chloride in a non-DOT specification cargo tank.	2
6919	Authorizes the use of a non-DOT specification insulated cargo tank for certain flammable gases.	1
6921	Authorizes use of a non-DOT specification portable tank for a nonflammable gas.	1
6922	Authorizes shipment of a flammable compressed gas in DOT 106A500-X multi-unit tank car tanks.	1
6923	Authorizes the use of non-DOT specification insulated cargo tanks for a flammable gas.	1
6925	Authorizes shipments of specified corrosive material in polyethylene bottles in fiberboard boxes.	1
6926	Authorize use of a packaging not presently prescribed in Hazardous Materials Regulations for class B poisonous liquids.	2
6927	Authorizes use of a non-DOT specification portable tank for certain Class B poisonous liquids.	1
6929	Authorizes shipment of rocket motors in a propulsive state.	1
6932	Authorizes use of non-DOT specification portable tanks for anhydrous hydroflouric acid.	1
6939	Authorizes use of an insulated DOT Specification MC-331 cargo tank for a flammable gas.	1
6944	Authorizes the transport of a liquid high explosive in a specially designed stainless steel desiccator.	1
6949	Authorizes use of marine portable tanks for certain flammable solids.	1
6958	Authorizes the shipment of element bromine in a portable tank not presently authorized in the regulations.	1
6960	Authorizes the use of steel drums not presently authorized in the Hazardous Materials Regulations for shipment of certain corrosive liquids.	2
6962	Authorizes shipment of nonflammable compressed gases in DOT Specification 3AA1800 or 3AA2000 cylinders.	1

Number	*Purpose*	*Reason*
6964	Authorizes use of a non-DOT specification plastic bag for the transportation of a poisonous solid, Class B.	1
6969	Authorizes the air shipment of a transport incubator which contains a nonflammable compressed gas.	4
6971	Authorizes the transportation of small quantities of reagent chemicals to be transported in metal boxes or metal cases having inside glass bottles.	1
6974	Authorizes the use of non-DOT specification cylinders for the transportation of certain nonliquefied compressed gases.	2
6978	Authorizes the use of an insulated DOT MC-331 cargo tank for the transportation of a flammable compressed gas.	1
6984	Authorizes the packaging of 1000 or less electric blasting caps in IME 22 containers (Class C explosives).	1
6985	Authorizes the shipment of diallyl phtalate—pyrotechnic material (class B explosive reclassified as a flammable solid) in a non-DOT specification packaging.	1
6986	Authorizes the use on non-DOT specification polyethylene packagings for certain corrosive liquids an oxidizers.	1
6998	Authorizes shipment of a nonflammable compressed gas in non-DOT steel pressure vessels.	2
6999	Authorizes hatches to remain open overnight under certain conditions.	1
7001	Authorizes use of a removable head polyethylene container for certain oxidizers.	1
7005	Authorizes the use of non-DOT specification portable tanks for certain flammable, corrosive, class B poisons, and combustible liquids and OMM-A materials.	2
7007	Authorizes a variation from the specification of a DOT Specification 110A500W tank for chlorine.	1
7010	Authorizes the transportation of bromine in non-DOT specification portable tanks.	1
7011	Authorizes the transport of caustic soda bead amd a corrosive solid in polyethylene containers not exceeding 57-gallon capacity.	1
7013	Authorizes the use of a non-DOT specification cargo tank for flammable compressed gas.	2
7014	Authorizes the use of non-DOT specification intermodal portable tanks for use in the transportation of ethyl alcohol (flammable liquid)	1
7015	Authorizes the use of a non-DOT specification portable tank for the transportation of a nonflammable gas (helium).	1
7020	Authorizes bulk shipment of an oxidizing material.	2
7023	Authorizes packagings not provided for in the Hazardous Materials Regulations for an oxidizer or corrosive material.	2
7024	Authorizes the transport of an alkaline corrosive liquid in collapsibel rubber containers identified as Sealdtanks.	1
7025	Authorizes the use of a non-DOT specification cargo tank for a flammable gas and nonflammable gas.	1
7026	Authorizes the use of an non-DOT specification pressure vessel for a compressed gas.	2
7031	Authorizes use of a non-DOT specification fiberboard box meeting DOT-12H except for packagaing of certain classs A & B explosives.	1
7032	Authorizes outside packages exceeding the 100 pounds limitations to be carried aboard cargo-only aircraft. Contains certain corrosive solid.	2

Number	*Purpose*	*Reason*
7035	Authorizes the use of non-DOT specification drums for use in the transportation of certain corrosive liquids and solids, oxidizers, and flammable liquids.	1
7040	Authorizes the carriage of larger quantities of corrosive liquds than presently authoirzed by cargo-only aircraft.	1
7041	Authorizes shipment of pyrophoric waste materials in non-DOT specification cargo tank of the MC-331 type.	2
7042	Authorizes the use of non-DOT specification aluminum cylineders for various compressed gases and other hazardous materials.	2
7046	Authorizes the use of glass lined cargo tanks complying with DOT Specification MC-312 except for Section 178.340-5.	2
7051	Authorizes use of non-DOT specification Teflon bottles overpacked with either a DOT specification 12A or 12B fiberboard box for transportation of a corrosive liquid.	1
7052	Authorizes the shipment of batteries containing lithium and other materials, classed as flammable solids.	1
7056	Authorizes one time reuse of DOT Specification 37A steel drums for a flammable solid.	1
7060	Authorizes the carriage of radioactive materials aboard cargo-only aircraft when the combined transport index exceeds 50.0 and/or the separation criteria cannot be met.	1
7062	Authorizes variation from the specifications of a DOT Spec 34 polyethylene container for certain liquid materials.	2
7063	Authorzies use of a removable-head DOT Specification 35 container and a non-DOT specification pail for shipment of a corrosive solid.	1
7066	Authorizes the use of non-DOT specification portable tanks for shipment of certain flammable liquids and class B poisonous liquids.	2
7070	Authorizes shipment of a poison B solid in a plastic jar/metal can/fiberboard box composite packaging.	1
7071	Authorizes packagings in a quantity not provided for in the regulation for use with a corrosive liquid.	1
7072	Authorizes the use of non-DOT specification polyethylene Specification 34 type packaging for certain corrosive liquids, oxidizers, flammable liquids, poison B liquids and liquid organic peroxide.	1
7073	Authorizes the use of non-DOT specification portable tanks for a class B poisonous liquid.	2
7076	Authorizes packaging not authorized by the Hazardous Materials Regulations for a corrosive liquid.	1
7077	Authorizes the use of non-DOT specification portable tanks for certain flammable and flammable gases.	2
7078	Authorizes shipment of radioactive materials with a transport index in excess of 50 and with separation distance requirments less than those in the CFR.	1
7082	Authorizes use of non-DOT specifications polyethylene container of 55 gallon capacity for use in transportation of certain corrosive liquids class B poisonous liquids, flammable liquids and oxidizer.	1
7085	Authorizes packaging not presently authorized by the Hazardous Materials for a class C explosive.	2
7087	Authorizes the shipment of small quantities of certain hazardous materials in non-DOT specification containers.	2

Number	*Purpose*	*Reason*
7096	Authorizes shipment of a nonflammable liquefied compressed gas (bromotrifluoromethane) in non-DOT specification cylinders.	2
7097	Except dry mixtures of parathion and tetraethyl dithio pyrophosphate from specification packaging requirements.	2
7192	Authorizes the use of non-DOT specification cargo tanks for thetransp ortation of liquefied hydrogen (flammable gas).	2
7201	Authorizes the use of pressure vessels charged with certain nonflammable compressed gas to be carried in the cabin of a passenger-carrying aircraft.	4
7202	Authorizes the transportation of a compressed gas package in the cabin of a passenger-carrying aircraft.	4
7205	Authorizes certain stowage deviations for shipments of explosives by vessel.	1
7206	Authorizes shipment of certain corrosive liquids in non-DOT specification stainless steel cargo tanks.	2
7207	Authorizes shipment of cryogenic liquid ethylene in cargo tanks.	2
7208	Authorizes the transportation of class B explosives in quantities exceeding present limitations.	2
7218	Authorizes manufacture, marking and sale of non-DOT specification cyliners for use in the transportation of certain nonflammable gases.	2
7220	Authorizes manufacture, marking and sale of polyethylene containers to be used in the transportation of certain corrosive liquids, flammable liquids, oxidizers, and class B poisonous liquids.	2
7227	Authorizes the use of a vacuum insulated, non-DOT specification portable tank for the shipment of a certain nonflammable gas.	1
7228	Authorizes the use of a loading chute to load blasting caps into vessel.	1
7235	Authorizes manufacture, marking and sale of non-DOT specifications cylinders for use in the transportation of certain non-flammable compressed gases.	2
7239	Authorizes use of a collapsible rubber container for transportation of a blasting agent.	1
7244	Authorizes organ transplant modules containing certain compressed gases aboard a passenger-carrying aircraft.	4
7247	Authorizes a bulkhead in the lower hold of a vessel separation military explosives from general cargo to be secured on 4 inch by 6 inch uprights.	1
7249	Authorizes the use of containers not otherwise permitted by the Hazardous Materials Regulations for certain flammable liquids.	2
7252	Authorizes the transport of Pourvex and Tovex Extra (class B explosive) in packaging not provided for in Hazardous Mataerial Regulations.	2
7255	Authorizes simultaneous loading of two holds with in same hatch when handling militry explosives.	
7257	Authorizes the use of non-DOT specification portable tanks to be used in the transportation of certain corrosive liquids.	2
7268	Authorizes the use of a DOT Specification 39 nonrefillable cylinder in the transportation of a nonflammable compressed gas.	2
7269	Authorizes use of sift-proof paper or plastic bags overpacked in DOT Specification 21C fiber drums for use in transportation of certain class A explosives.	2
7270	Authorizes use of a non-DOT specification tank for combustible liquids.	2

Number	*Purpose*	*Reason*
7274	Authorizes the use of non-DOT specification portable tanks for the transportation of certain nonflammable compressed gases.	1
7275	Authorizes the carriage of certain explosives by cargo-only aircraft.	1
7277	Authorizes the manufacture, mark and sell of non-DOT specification aluminum-lined cylinders for the transportation of certain nonflammable gases.	2
7280	Authorizes fuel tanks to be ¾ full instead ¼ full for certain motor vehicles, fixed-wing aircraft and helicopters offered for transportation by vessel.	1
7282	Authorizes use of non-DOT specification portable tanks as packaging for certain mixtures of nonpoisonous nonflammable compressed gases.	2
7285	Authorizes the use of non-DOT specification portable tanks for transportation of certain nonflammable, liquefied gases.	1
7286	Authorizes shipment of certain nonliquefied compressed gases in cylinders which are over 35 years old.	2
7404	Authorizes certain hazardous materials to be placed in an inaccessible cargo location aboard aircraft.	2
7407	Authorizes the offering of packages of a certain explosive B inceddiary grenades for transportation by air.	4
7409	Authorizes use of a modified cargo tank for use in the transportation of certain combustible liquids.	2
7413	Authorzies the transportation of carbon dioxide in a non-DOT specification brazed steel cylinder.	2
7418	Authorizes the transportation of whiskey and distilled spirits in a non-DOT specification portable tank similar to a DOT Specification MC-307.	2
7423	Authorizes the use of DOT Specification 56 portable tanks for the transportation of certain flammable solids.	2
7426	Authorizes shipment of a corrosive liquid in DOT Specification MC-303 cargo tank.	2
7435	Authorizes the carriage of certain explosives by cargo-only aircraft.	3
7438	Authorizes the use of non-DOT specification cargo tanks for the transportation of a class B poisonous liquid.	3
7440	Authorizes packaging having a capacity exceeding that specified in the regulations for a nonflammable gas.	2
7442	Authorizes the shipment of combustible liquid in non-DOT specification portable tanks.	2
7444	Authorizes the shipment of liquefied flammable gases in non-DOT specification cargo tanks.	2
7446	Authorizes the shipment of dry powder-fire extinguishant changed with compressed air or nitrogen in non-DOT specification aluminum cyliners.	2
7451	Authorizes nitro carbo nitrates to be stowed in proximity to certain explosives without a bulkhead separating these materials.	1
7455	Authorizes handling and stowage of explosive material in an anchored and unmanned barge.	3
7457	Authorizes stowage of class A explosives on deck adjacent to or over a hold containing cotton.	1
7458	Authorizes the use of a non-DOT specification cylinder for transportation of certain nonflammable compressed gases.	2
7465	Authorizes stowage of transport motor vehicles and liquefied petroleum gas aboard passenger vessels.	1

Number	Purpose	Reason
7466	Authorizes the offering of packagings prescribed herein of certain flammable liquid mixtures for transportation in commerce.	2
7476	Authorizes the manufacture, marking, and sale of certain non-DOT specification cargo tanks for use in the transportation of certain flammable liquids and corrosive liquids.	2
7477	Authorizes the use of non-DOT specification containers for the transportation of certain nonflammable compressed gases.	2
7482	Authorizes the use of reconditioned non-DOT specification plastic drums for packaging of a corrosive solid waste.	2
7483	Authorizes the use of non-DOT specification intermodal tanks for the transportation of various hazardous materials.	2
7489	Authorizes shipment of a corrosive liquid in specified inside metal container.	1
7491	Authorizes manufacture, marking, and sale of non-DOT specification tank cars for use in the transportation of a flammable compressed gas (cryogenic liquid).	1
7493	Authorizes use of non-DOT specification insulated portable tanks for the transportation of various hazardous materials.	2
7494	Authorizes the transportation or shipment of certain cryogenic liquids in a non-DOT cargo tank.	1
7495	Authorizes the manufacture, marking, and sale of a portable steel tank for use in the transportation of certain compressed gases.	1
7498	Authorizes shipment of a corrosive liquid in a non-DOT specification corrugated polypropylene box.	1
7502	Authorizes the manufacture, marking, and sale of non-DOT specification polyethylene containers for use in the transportation of certain corrosive liquids and oxidizers.	1
7503	Authorizes the use of a portable tank which has no comparable tank in the regulations for the transportation of various hazardous materials.	2
7505	Authorizes transportation for certain class B poisons packaged in DOT specification 17C drums previously used for shipment of class B poisons and subsequently recondition (decontaminated).	2
7513	Authorizes the shipment of pressurized liquid oxygen in DOT Specification MC-331 cargo tanks.	1
7516	Authorizes the use of non-DOT specification portable tanks for transportation of certain flammable, corrosive, poisons, or combustible liquids.	2
7517	Authorizes the manufacture, marking, and sale of non-DOT specification tank cars for use in the transportation of a nonflammable compressed gas.	1
7520	Authorizes the use of non-DOT specification steel portable tanks for transportation of certain combustible and flammable liquids.	2
7524	Authorizes use of packagings not presently authorized by the regulations for the shipment of a nonflammable gas.	2
7526	Authorizes non-specification packaging of a pyrophoric liquid.	2
7528	Provides for the conversion of a non-DOT specification 55-gallon steel drum to an open-head, DOT specification 17-H drum.	2
7536	Provides authority to allow an increase to the maximum allowable draft weights for five and ten ton rated booms for handling of military explosives.	1
7538	Authorizes the manufacture, marking, and sale of non-DOT specification polyethylene containers for use in packaging of certain corrosive liquids.	1

Number	*Purpose*	*Reason*
7541	Authorizes use of a non-DOT specification portable tank for the transportation of certain flammable and nonflammable compressed gases.	2
7542	Authorizes the manufacture, marking, and sale of non-DOT specification cylinders for use in the transportation of a flammable gas.	2
7543	Authorizes shipment of a flammable solid in a DOT Specification 56 portable tank.	1
7544	Authorizes transportation of solutions of sodium hydroxide and certain other liquid corrosives, or other liquid corrosive materials, authorized to be packaged in a DOT Specification 20 container.	2
7546	Authorizes the use of non-DOT specification containers for transportatin of certain flammable liquids and nonflammable and flammable compressed gases.	3
7548	Authorizes stowage of explosives on deck of vessel, over the square of the hatch. Class XC military explosives.	1
7549	Authorizes use of a 316L stainless steel portable tank for transportation of a certain corrosive material.	1
7555	Authorizes use of a cargo tank made from non-metallic materials for transportation of certain corrosive materials.	12
7558	Authorizes the use of a non-DOT specification portable tank for the transportation of certain nonflammable gases.	2
7559	Authorizes the shipment of small quantities jof pyrophoric liquid in packagings not presently prescribed in the Hazardous Materials Regulations.	1
7567	Authorizes the transportation of certain explosives offered for transportation by or for the U.S. Department of Defense in cargo-only aircraft.	1
7568	Authorizes loading or unloading of nitro carbo nitrate in rigid containers with combustible inside packaging at non-isolated facilities.	1
7573	Authorizes the transportaion of certain hazardous materials presently forbidden or in qunatities greater than allowed for cargo-only aircraft.	1
7574	Authorizes the transportation of certain explosives that are not permitted for air shipment or are in quantities greater than prescribed.	12
7576	Authorizes the use of non-DOT specification portable tanks for the transportation of certain ORM-A liquids.	2
7578	Authorizes shipoments of class B explosives in inside viscose rayon bags.	2
7584	Authorizes the use of non-DOT specification portable tanks for the transportation of a hydrogen peroxide solution (not to exceed 70%).	2
7586	Authorizes the transportation of rocket motors (class B explosive) in a propulsive state and in a packaging not presently prescribed in the regulations.	1
7589	Authorizes the transportation of a corrosive liquid in packagings not presently prescribed in Hazardous Materials Regulations.	1
7590	Authorizes packages containing class B poisons to be placed in a specially designed reusable overpack and transported in the same vehicle with foodstuff, feed or and other edible material.	1
7594	Authorizes use of a non-DOT specification portable tank for transportation of a class B poison.	2
7595	Authorizes the transport of certain poison B liquids in DOT specification MC-312 cargo tanks.	2
7596	Authorizes the use of non-DOT specification intermodal portable tanks for the transportation of certain combustible and flammable liquids.	2

Number	Purpose	Reason
7598	Authorizes the shipment of certain corrosive materials, oxidizers and class B poisons in portable tanks complying with DOT 60 specification except the ends are bolted instead of welded.	2
7600	Authorizes the manufacture, marking and sale of non-DOT specification cargo tanks to be used in the transportation of certain flammable gases.	2
7601	Authorizes the shipment of desenitized nitroglycerin in non-DOT specification packagings.	3
7603	Authorizes the use of non-DOT specification cargo tanks for transportation of certain nonflammable gases.	1
7605	Authorizes the transportation of certain explosives contained in a partially disassembled aircraft or canopy assembly.	1
7607	Authorize shipment of hydrogen in non-DOT specification seamless steel cylinders.	1
7610	Authorizes the shipment of certain flammable liquids in ASME designed steel portable tanks.	2
7611	Authorizes the transport of certain class C explosives in packagings not presently authorized in 49 CFR 173.101(a).	2
7613	Authorizes use of an unlined one-gallon tin can for shipment of corrosives.	1
7615	Authorizes use of Liquipak Fiber Drums as packaging for an organic peroxide.	2
7616	Authorizes the carrier to certify the shipping paper on behalf of the shipper when transporting hazardous materials on a repetative basis.	1
7617	Authorizes shipment of an oxidizing material in bulk containers on board cargo vessels.	5
7620	Authorizes the use of certain non-DOT specification portable tanks for use in the transportation of various hazardous materials.	2
7621	Authorizes as 180 portable tank for shipment of methyl bromide, and chloropicrin.	2
7622	Authorizes the transportation in truckload lots of a certain poison B solid, n.o.s. in a DOT Specification 56 portable tank.	2
7625	Authorizes the transport of certain corrosives in DOT Specification 56 tanks.	2
7628	Authorizes the use of DOT-111A100W-5 tank cars equipped with a safety relief valve instead of a vent for carriage of certain corrosive liquids.	5
7629	Authoirzes the use of non-DOT specification portable tanks for the transportation of various flammable liquids, corrosive materials, and combustible liquids.	2
7632	Authorizes the use of an insulted DOT Specification MC-331 cargo tank for transportaion of a liquefied gas.	1
7633	Authorizes the use of non-DOT specification portable tanks for the transportation of various hazardous materials.	2
7638	Authorizes the use of a DOT specification 4L cylinder for transportation of certain nonflammable compressed gases.	4
7640	Authorizes use of a DOT Specification 34 polyethylene container of 15 callon capacity for shipment of hydrogen peroxide, 60%.	2
7641	Authorizes carriage of motor vehicles aboard cargo vessels with battery cables connected.	5
7648	Authorizing the carriage of aerial illuminating flares for testing purposes in cargo-only aircraft.	3
7650	Authorizes the use of non-DOT specification portable tanks for transportation of certain nonflammable compressed gas.	2
7651	Authorizes the shipment of class B explosives in packagings not presently prescribed in the Hazardous Materials Regulations.	1

Number	Purpose	Reason
7654	Authorizes the use of a glass bottle not exceeding 500 milliliter capacity inside a metal container overpacked in a DOT specification 12B fiberboard box for transportation of a flammable liquid.	2
7657	Authorizes the manufacture, marking and sale of non-DOT specification cylinders to be used in the transportation of certain compressed gases.	2
7658	Authorizes consumer commodities classed as ORM-D to be trasnported in packagings not presently authorized in Section 173.1200.	2
7665	Authorizes shipment of crude oil in non-DOT specification portable tank.	2
7666	Authorizes stowage of freight container's in an athwartship direction.	1
7671	Authorizes the use of non-DOT specification portable tanks for transportation of various hazardous materials.	2
7674	Authorizes shipment of certain class A explosives to be made on flat-cars and open-top rail cars.	1
7677	Authorizes the shipment of liquefied natural gas (methane) in non-DOT specification truck mounted portable tank.	1
7680	Authorizes shipment of a certain flammable solid in a special stainless steel drum.	2
7682	Authorizes the manufacture, marking, and sale of a 35-gallon all-polyethylene drum for use in the transportation of certain corrosive liquids.	2
7683	Authorizes the manufacture, marking, and sale of an insulated DOT Specification MC-331 cargo tank to be used in the transportation of a flammable gas.	1
7685	Authorizes use of DOT Specification 21C fiberdrum with two 4 mil inner polyethylene film bags as packaging for a certain class A explosive.	2
7694	Authorizes the use of non-DOT specification cylinders containing non-liquefied compressed gases.	2
7695	Authorizes use of a non-DOT insulated portable tank for transportation of various hazardous materials.	2
7699	Authorizes a DOT Specification 51 portable tank as packaging for flammable liquid.	2
7700	Authorizes the transportation of gasoline in the baggage compartments of helicopters.	1
7701	Authorizes the shipment of certain flammable liquids in non-DOT specification tanks.	2
7708	Authorizes the use of non-DOT specification small, high pressure cylinders of welded construction for aircraft use only which contain a nonflammable compressed gas.	2
7710	Authorizes the manufacture, marking, and sale of a modified DOT 12P fiberbard box with 2 inner 2.5 gallon DOT 2U polyethylene containers as packaging for some corrosive, flammable, & poison B liquids.	2
7714	Authorizes the use of a portable tank for which there is a no comparable tank in the DOT regulations as packaging for certain poisonous, corrosive, flammable combustible, and ORM-A liquids.	2
7716	Authorizes the transport of ammonium nitrate in inside packagings, each containing less than 1 pound, in DOT specification outside packagings containing not more than 36 pounds net weight.	2
7719	Authorizes the use of a brazed DOT Specification 39 cylinder for transportation of a certain flammable compressed gas.	2
7720	Authorizes the use of a non-DOT specification portable tank for transportation for certain flammable liquids.	2
7721	Authorizes the manufacture, marking, and sale of non-DOT specification steel cylinders for use in the transportation of certain nonflammable, nonliquefied compressed gases.	1

Number	Purpose	Reason
7725	Authorizes the use of coded shipping papers.	1
7726	Authorizes the manufacture, marking, and sale of small low pressure non DOT specification containers as components of a cooling module assembly used in the transportation of certain nonflammable gases.	1
7727	Authorizes shipment of poison B in reused 17E drums.	3
7730	Authorizes use of a DOT Specification MC-312 cargo tank for transportation of certain corrosive materials.	3
7734	Authorizes the manufacture, marking, and sale of five-gallon capacity removable head polyethylene drums for use in transportation of certain corrosive liquids.	1
7735	Authorizes the manufacture, marking, and sale of DOT Specification 34 containers for use in the transportation of certain flammable liquids.	1
7737	Authorize the manufacture, marking, and sale of a non-DOT seamless aluminum cylinder for use in the transportation of a flammable compressed gas.	2
7741	Authorizes the shipment of anhydrous hydrazine and helium in non-refillable non-DOT specification packagings.	23
7743	Authorizes the use of a DOT 51 portable tank for transportation of a certain flammable gas.	2
7744	Authorizes the shipment of liquefied anhydrous hydrogen chloride in DOT specification MC-331 cargo tanks.	2
7752	Authorizes the use of non-DOT specification intermodal portable tanks for use in transportation of various hazardous materials.	2
7753	Authorizes the shipment of yellow phosphorous in a tighthead 55 gallon DOT Specification 17C drum.	2
7754	Authorizes the transport of non-electric blasting caps in the same vehicle with Class and Class B explosives when the caps are placed in a special container.	1
7755	Authorizes small quantities of liquid hazardous materials in prescribed packagings essentially without regulation.	1
7759	Authorizes dichloropropene-dichloropropane mixture in a non-DOT specification IMCO Type 2 portable tank.	2
7765	Authorizes the use of a non-DOT specification cylinders for transportation of a nonflammable gas.	2
7767	Authorizes use of a stainless steel other than that prescribed in the regulations, in the construction of a cylinder patterned after the DOT Specification 4DS cylinder for aircraft use only.	1
7768	Authorizes the manufacture, marking, and sale of a 55-gallon removable head polyethylene drum for use in the transportation of certain oxidizers and corrosive solids.	2
7769	Authorizes the manufacture, marking, and sale of non-DOT specification packagings for use in the trasnportation of certain nonflammable compressed gases.	1
7770	Authorizes the transport of anhydrous hydrogen fluoride or anhydrous methylchloromethyl ether in certain non-DOT portable tanks.	2
7772	Authorizes the use of a non-DOT specification portable tank for transportation of certain flammable liquids.	2
7774	Authorizes the shipment of bromine trifluoride in non-DOT specification cylinders.	2
7775	Authorizes nitro carbo nitrate and ammonium nitrate with dynamite in a roll-on, roll-off rail car aboard a cargo vessel without a bulkhead separating the materials.	1

Number	Purpose	Reason
7777	Authorizes use of several different DOT specification packagings for spent sulfuric acid.	2
7778	Authorizes barrels of distilled spirits to be transported without being labeled or having the exemption number marked on the barrel or shipping paper.	3
7788	Authorizes the shipment of corrosive liquids in non-DOT specification 20- and 35-gallon capacity rotationally molded, reusable polyethylene drums.	1
7793	Authorizes the transportation of a corrosive liquid, which is also a poison, in non-DOT specification portable tanks.	2
7796	Authorizes the use of non-DOT specification packaging for the shipment of a class B poison.	2
7798	Authorizes the use of fiberboard box/ polyethylene container packagings for the transportation of spent sulfuric acid.	1
7802	Authorizes shipment of liquid hazardous materials in 3.5 or 5 gallon capacity removable head polyethylene drums.	1
7803	Authorizes shipment of liquid hazardous materials in five-gallon capacity removable head polyethylene drums.	1
7804	Authorizes the molding of a DOT Specification 2SL inside polyethylene container of high density, high molecular weight resing.	2
7808	Authorizes the shipment of insecticides in DOT Specification 39 cylinders without Bureau Explosive approved safety device.	1
7811	Authorizes use of DOT specification corrugated fiberboard box with handholes for the transportation of certain corrosive and flammable liquids.	2
7819	Authorizes shipment of various hazardous materials in a non-DOT specification IMCO Type I portable tank.	2
7820	Authorizes the use of a non-DOT specification portable tank for the transportation or certain corrosive liquids, flammable liquids, poison B liquids and combustible.	2
7822	Authorizes the shipment of liquid helium in specifically insulated-non-DOT specification portable tanks.	2
7823	Authorizes the transportation of iodine pentafluoride in cylinders conforming to DOT Specification 4BW with certain exceptions.	2
7827	Authorizes the transportation of a certain oxidizing material in a freight container.	1
7828	Authorizes the carriage of a larger quantity of LPG than authorized by 1/2.101 in a DOT Specification 51 portable tank on cargo-only aircraft.	1
7834	Authorizes the transportation of nonliquefied sulfur hexafluoride in certain X-ray machines.	1
7835	Authorizes the transport of compressed gas cylinders bearing the flammable gas label, the oxidizer label, or the poison gas label and tank car tanks bearing the poison gas label on the same vehicle.	1
7840	Authorizes the transportation of a Class C explosive and a nonflammable compressed gas in the same fiberboard container.	1
7845	Authorizes the carriage of a larger quantity in one package of liquefied petroleum gas by cargo-only aircraft.	1
7846	Authorizes frame mounting and manifolding of DOT Specification seamless steel tank car tanks transporting certain nonflammable gases.	1
7849	Authorizes the use of non-DOT specification cargo tanks for the transportation of certain nonflammable gases.	2

Number	Purpose	Reason
7857	Authorizes the use of certain non-DOT specification portable tanks for the transportation of some flammable gases.	2
7862	Authorizes the use of non-DOT specification containers for the transportation of a nonflammable gas.	2
7865	Authorizes the use of welded non-DOT specification cylinders for the transportation of certain nonliquefied compressed gases.	2
7869	Authorizes shipment of rust preventing compounds in DOT Specification 57 portable tanks.	1
7871	Authorizes electric blasting caps and nonel primadets in portable magazines to be trasported on deck the M/V Hancock Clipper with Class A explosives & blasting agents or ammonium nitrate.	3
7872	Authorizes a portable tank capacity in excess of that set forth in the regulations for a tank trasnporting a flammable liquid.	2
7873	Authorizes the use of non-DOT specification intermodal portable tanks for the transportation of a Class B poison liquid.	2
7876	Authorizes the shipping description etching acid, liquid, n.o.s. to be used for products which do not comply with the definition in CFR 173.299(a).	1
7879	Authorizes the shipment of bromine trifluoride in non-DOT specification cylinders.	1
7881	Authorizes the stowing of a corrosive solid, n.o.s. below deck when transported by passenger vessel.	1
7882	Authorizes the use of non-DOT specification portable tanks for the transportation of certain flammable and combustible liquids.	2
7883	Authorizes transport of metallic sodium in DOT specification 105A300-W tank cars which have not been subjected to the hydrostatic retest requirements of 49 CFR 173.31(c)(2).	1
7885	Authorizes the use of non-DOT specification packaging for the transportation of certain hazardous materials.	1
7886	Authorizes the shipment of a corrosive liquid in non-DOT specification metal can/fiberboard box packaging.	2
7887	Authorizes the shipment of packages of toy propellant devices as an ORM-D material and excepted from labeling requirements.	1
7888	Authorizes the use of a modified DOT Specification 34 drum for the transportation of certain corrosive liquids.	12
7890	Authorizes the transport of methyl isocyanate in DOT Specification 51 portable tanks.	2
7891	Authorizes the exemption of certain small quantity class B poison packages from labeling requirements, and flammable solids from placarding requirements.	1
7893	Authorizes the use of a non-DOT specification portable tank for the shipment of an oxidizer.	2
7895	Authorizes the transportation of certain corrosive materials in DOT specification 51 stainless steel portable tanks.	2
7896	Authorizes the use of non-DOT specification IMCO type II portable tanks for the transportation of various hazardous materials.	2
7897	Authorizes the use of non-DOT specification IMCO type II insulated portable tanks for the transportation of various hazardous materials.	2
7898	Authorizes the transportation of methylhydrazine in tank cars constructed of certain alloys of aluminum and steel.	2

Number	Purpose	Reason
7901	Authorizes the use of non-DOT specification IMCO type I insulated portable tanks for the transportation of a flammable liquid.	2
7907	Authorizes shipment of wet nitrocellulose, a flammable liquid or flammable solid, in non-DOT specification fiberboard drums.	2
7908	Authorizes the shipment of certain flammable liquids in non-DOT specification IMCO type I portable tanks.	2
7909	Authorizes the transportation of Class B poisons in inside containers of 1 liter capacity overpacked in composite packaging and without the Poison B label.	1
7910	Authorizes the use of non-DOT specification containers made from plastic for the transportation of compressed gases.	1
7911	Authorizes the use of a non-DOT specification cargo tank for the transportation of certain flammable gases.	2
7915	Authorizes stowage in the same hold or compartment of hazardous materials which normally may not be stowed together on board a vessel.	1
7919	Authorizes stowage in the same hold or compartment of hazardous materials which normally may not be stowed together on board a vessel.	1
7921	Authorizes the transport of analytical kits containing reagent chemicals in sealed glass ampules which do not exceed one ml. capacity.	1
7922	Authorizes the use of non-DOT specification packagings for the transportation of certain nonflammable compressed gases.	4
7923	Authorizes the use of a non-DOT specification packaging for the transportation of certain nonflammable compressed gases.	4
7925	Authorizes the use of non-DOT specification intermodal portable tanks for the transportation of certain corrosive liquids.	2
7929	Authorizes the transport of flaked or pelletized TNT in woven plastic bags with plastic film liners.	
7931	Authorizes the use of non-DOT specification portable tanks for the transportation of certain Class B poisonous liquids.	2
7933	Authorizes the use of a non-DOT 55-gallon polyethylene DOT-34-type packaging for certain corrosive liquids, flammable liquids, and oxidizers.	1
7938	Authorizes shipment of flammable, corrosive, poison B, and combustible liquids in non-DOT specification portable tanks.	2
7940	Authorizes the use of a non-DOT specification polyehtylene drums for the transportations of certain corrosive liquids.	1
7941	Authorizes the use of non-DOT specification aluminum cylinders for the transportatin of certain liquefied and nonliquefied compressed gases and certain other hazardous materials.	2
7942	Authorizes refilling of DOT Specification 17E drums with gasoline without full compliance with 173.28(m).	2
7943	Authorizes shipment of corrosive liquids in fiberboard boxes complying with DOT Specification 12B except for handholes in top flaps.	5
7944	Authorizes the use of non-DOT specification marine portable tanks for the transportation of certain flammable, corrosive, and combustible liquids.	1

Number	*Purpose*	*Reason*
7945	Authorizes use of a stainless steel other than that prescribed in the regulations in the construction of a cylinder patterned after the DOT Specification 4DS cylinder.	2
7946	Authorizes the shipment of various nonflammable gases in non-DOT specification packagings.	2
7948	Authorizes shipment of flammable and corrosive waste materials in non-DOT specification ASME cargo tanks with bottom outlets.	2
7951	Authorizes the transportation of an aerosol foodstuff in a modified DOT Specification 29 metal container at a charge pressure not exceeding 150 psig at 75 deg. F when shipped refrigerated.	2
7952	Authorizes the shipment of phosphorus tribromide in non-DOT specification lead-linded drums.	2
7954	Authorizes the shipment of nonflammable gas in manifolded DOT Specification cylinders.	1
7957	Authorizes the use of aluminum in place of steel to manufacture a cargo tank that otherwise complies with Section 178.337.	2
7959	Authorizes the stowage of transport vehicles and motor vehicles containing compressed gases on the vehicle deck of ferries and passenger vessels.	1
7963	Authorizes the trasnportation of perchloromethyl mercaptan in monel tanks constructed in accordance with DOT Specification 51.	2
7966	Authorizes the use of DOT Specification 12B fiberboard boxes having inside steel containers for the transportation of a corrosive material.	5
7969	Authorizes the shipment of certain hazardous materials in non-DOT specification cargo tanks.	2
7971	Authorizes the transportation of a nonflammable gas in non-DOT specification cylinders.	1
7972	Authorizes the transport of limited quantities of explosive in a special shipping container without placarding the vehicle.	1
7983	Authorize shipment of certain cells (batteries) containing lithium.	1
7987	Authoirzes shipment of a material designated as Poison B in 5-ply multi-wall natural kraft bags.	2
7989	Authorizes the transport of thionyl chloride in non-DOT specification inside containers.	2
7991	Authorizes the transport of railway track torpedoes and fuses in flagging kits of specified construction.	1
7996	Authorizes the use of 304 stainless steel in non-DOT specifiction 4BW type cylinders containing methyl isocyanate, a flammable liquid which also meets the poison B liquid criteria.	2
7997	Authorizes the transport of bromine chloride in a DOT Specification MC-312 ISO type lead lined portable tank.	2
7998	Authorizes the transport of sodium persulfate in non-DOT specification composite polyethylene paper bags.	1
7999	Authorizes the otherwise unregulated movement by vessel of motor vehicles and mechanized equipment powered by internal combustion engines fueled by combustible liquids.	1
8000	Authorizes shipment of certain flammable and poison B liquids in non-DOT specification ISO portable tanks.	2
8002	Authorizes the use of non-DOT specification portable tanks for certain flammable corrosive, class B poisonous, and combustible liquids and ORM-A materials.	2
8003	Authorizes the use of one gallon, open-headed polyethylene containers inside a DOT Specification 12B box for shipment of organic peroxide solids and pastes.	2
8005	Authorizes the transportation of an oxidizer in non-DOT specification portable tanks.	2

Number	*Purpose*	*Reason*
8006	Authorizes the transportation of unlabeled packages of toy paper or plastic caps complying with the requirements of 173.100(p) & 173.109, in motor vehicles w/ out placards. (1000 lbs. or more)	1
8008	Authorize the use of a non-DOT specification container for the transportation of a flammable propellant gas.	1
8009	Authorizes the transportation of natural gas in DOT specification 3AAX2400 cylinders made of 4130X steel.	1
8012	Authorizes the transportation of an oxidizer in non-DOT specification portable tanks.	2
8013	Authorizes the use of a DOT Specification cylinder not presently authorized for certain flammable and nonflammable gases.	2
8014	Authorizes the shipment of methyl bromide or permitted mehtyl bromide mixtures in a DOT Specification 12A fiberland box.	1
8015	Authorizes the use of non-DOT specification portable tanks for the transportation of various hazardous materials.	2
8016	Authorizes the transport of detonating cord and exploding bridge wire detonators in passenger-carrying aircraft and helicopters.	1
8017	Authorizes the use of DOT Specification 3AX, 3AAX, or 3T cylinders for the transportaion of a flammable gas.	2
8019	Authorize the shipment of sodium potassium, metallic liquid alloy which is a flammable solid, in non-DOT specification fiberboard box.	2
8020	Authorizes the use of a DOT-39 Specification cylinder for the transportation of a Poison B liquid.	1
8023	Authorizes the use of non-DOT specification FRP cyliners for the transportation of certain compressed gases.	1
8025	Authorizes the transportation of a water reactive solid in closed, watertight rail cars and motor vehicles.	1
8027	Authorizes shipment of air-conditioning machines described as "air-conditioning machines" as an alternative to "refrigerating machine".	1
8029	Authorizes the use of a non-DOT specification corrugated fiberboard box, two-piece Bliss Style, for the transportation of certain Class B poisonous liquids.	2
8030	Authorizes the transport of charged oil well perforating guns with a detonating fuze attached to one end.	1
8035	Authorizes the transportation of limited quantities of certain propellant explosives in special packages as Class C explosives.	1
8037	Authorizes use of a non-DOT specification fiberboard drum for shipment of wet nitrocellulose, a flammable solid.	2
8039	Authorizes the use of a DOT specification portable tank for the transportation of a corrosive and poisonous B liquid.	2
8046	Authorizes the use of non-DOT specification portable tanks for the transportation of certain corrosive liquids.	1
8047	Authorizes the shipment of untreated natural gas in stainless steel non-DOT specification cylinders.	1
8049	Authorizes use of DOT hazardous materials labels which have been overprinted w/ the appropriate IMCO class, division, and compatibility group, and to ship by vessel without labeling.	5

Number	*Purpose*	*Reason*
8050	Authorizes the transportation of nonliquefied sulfur hexafluoride in certain X-ray machines.	1
8051	Authorizes the use of a non-DOT specification 55-gallon polyethylene Specification 34 type reusable, blow-molded container.	1
8053	Authorizes shipment of monothylamine in inside glass bottles/ metal can packagings overpacked in DOT Specification 12B fiberboard boxes.	2
8055	Authorizes the shipment of a flammable solid in 50-pound capacity DOT specification 44C multi-wall paper bags.	2
8056	Authorizes the use of non-DOT specification portable tanks for the transportation of various hazardous materials.	1
8057	Authorizes the use of non-DOT specification portable tanks for the transportation of various hazardous materials.	1
8059	Authorizes the use of non-DOT specification packaging for the transportation of a certain nonflammable compressed gas.	1
8060	Authorizes the use of non-DOT specification portable tanks for the transportation of certain non-flammable liquefied gases.	2
8063	Authorizes the use of a DOT Specification 4L cylinder for the transportation of certain nonflammable gases.	2
8065	Authorizes the shipment of certain Class A and Class B explosives in non-DOT specification plywood boxes.	2
8067	Authorizes the use of a 15-gallon capacity DOT Specification 34 container for the shipment of 95% to 98% sulfuric acid.	1
8073	Authorizes the use of DOT Specification 3AAX2400 cylinders made of 4130X steel for the transportation of a compressed natural gas.	2
8074	Authorizes the use of a DOT Specification 3E cylinder without safety devices for the transportation of certain flammable and nonflammable gases.	1
8077	Authorizes the use of non-DOT specification steel drums for the transportation of certain corrosive and flammable liquids.	4
8078	Authorizes the transport of a rocket motor having a gross weight of 3,300 lbs. by cargo aircraft.	3
8079	Manufacture, mark and sell a DOT Specification 2SL inside polyethylene container of higher density, higher melt index resin for shipment of those materials authorized in a DOT Specification 2SL.	1
8080	Authorizes the transport of dry chromic acid in a DOT Specification tank car.	1
8081	Authorizes the transport of a Class B rocket motor having a gross shipping weight not exceeding 3000 lbs. by cargo-only aircraft.	3
8083	Authorizes stowage of carbon bisulfide (or carbon disulfide) and nickel carbonyl as may be permitted by the COPT aboard vessels also carrying explosives.	1
8084	Authorizes the transportation of Class A explosives containing more than 5% moisture in plastic tubes overpacked in prescribed outside packagings.	1
8086	Authorizes the transport of a cruise missile containing hazardous materials.	
8087	Authorizes the transportation of a certain water reactive solid and an oxidizer in DOT Specification 56 portable tanks.	1
8088	Authorizes the use of a round-pipe section for rolling hoops on Spec. 5 & 6 series drums instead of an I-bar section.	1

Number	*Purpose*	*Reason*
8090	Authorizes the use of DOT Specification 3AAX2400 cylinders made of 4130X steel for the transportation of a compressed natural gas.	2
8091	Authorizes the transport of certain mercury relays containing metallic mercury, classed as ORM-B, exempted from CFR 100–177.	1
8093	Authorizes the use of a non-DOT specification portable tank for the transportation of a flammable gas.	2
8094	Authorizes the shipment of corrosive in a DOT Specification 56 tank where a DOT Specification 60 tank is permitted in the regulations.	2
8096	Authorizes the use of non-DOT specification packaging that is at least equal to that in the regulations for the transportation of certain nonflammable gases.	1
8097	Authorizes the shipment of sodium hydrosulfite in fiberboard boxes not presently authorized.	1
8099	Authorizes the use of a non-DOT specification corrugated fiberboard box with an inner heat-sealed bag for the transportation of certain poisonous solids.	2
8101	Authorizes the use of EXPLOSIVES A placard when two Class A explosives are loaded together, & eliminates the need to label and mark packages as containing radioactive material.	1
8105	Authorizes the requalifications and reuse of non-DOT specification 55-gallon open-head steel drums.	2
8107	Authorizes the use of DOT Specification cylinders & certain cylinders covered by exemption to ship hydrogen in combination with iron-titanium alloy contained in the cylinders.	1
8108	Authorizes shipment of certain corrosive liquids in packagings not presently authorized.	1
8109	Authorizes the transportation of certain hazardous materials in non-DOT specification intermodal tanks.	2
8110	Authorizes use of non-DOT specification portable tanks with bottom outlet for the transportation of various hazardous materials.	2
8111	Authorizes the use of non-DOT specification welded, stainless steel cylinders for the transportation of a nonflammable gas mixture.	1
8113	Authorizes the use of metal cans for shipment of materials corrosive to skin but not to metal.	3
8115	Authorizes the use of a limited number of non-DOT specification PRP cylinders prescribed in DOT-E 8023 for underwater breathing.	1
8116	Authorizes shipment of small quantities of analytical standards in prescribed packaging essentially without regulation.	4
8119	Authorizes the carriage of certain corrosive and flammable liquids in non-DOT specification cargo tanks.	2
8120	Authorizes the carriage or certain explosive by cargo-only aircraft.	3
8121	Authorizes the use of a portable tank not previously authorized for a corrosive material.	1
8123	Authorizes the shipment of various hazardous materials in a non-DOT specification plastic overpack containing multiple DOT Specification 2E polyethylene bottles of one gallon capacity or metal cans.	1
8125	Authorizes the of non-DOT specification non-insulated portable tanks for the transportation of certain flammable and nonflammable gases and flammable liquids.	2
8126	Authorizes shipment of various liquefied gases in non-DOT specification IMCO type V low pressure portable tanks.	2

Number	*Purpose*	*Reason*
8127	Authorizes the use of a non-DOT specification fiberboard drum for shipment of wet nitrocellulose.	1
8129	Authorizes the shipment of certain corrosive liquids packed in bottles surrounded by absorbent material ovepacked in DOT Specification 37A, 17H, or 6J drums.	1
8130	Authorizes the use of lined and sift-proof containers for shipment by vessel of an ORM-C material.	1
8131	Authorizes the use of a non-DOT container for a nonflammable gas.	2
8133	Authorizes the use of DOT Specification MC-306 type 316 stainless steel cargo tank for the transportation of a corrosive liquid.	2
8134	Authorizes the shipment of nitric acid and perchloric acid in DOT Specification 12R boxes having inside glass bottles closed with liner-less polypropylene caps.	1
8136	Authorizes the use of DOT Specification 57 stainless steel portable tanks for the transportation of corrosive solutions or acid.	1
8137	Authorizes the transport of blasting caps without the inside containers required in 173.66(c).	1
8139	Authorizes shipment of a solid oxidizer in a non-DOT specification fiberboard box.	2
8140	Authorizes the use of DOT Specification 3AAX2400 cylinders made of 4130X steel for compressed gas.	1
8141	Authorizes the transport of individual cells and modules consisting of three cells containing lithium metal and thionyl chloride.	1
8144	Authorizes shipment of a one to nine ratio of nitroglycerine to propylene glycol as "spirits of nitroglycerine".	1
8145	Authorizes the use of non-DOT specification wirebound/corrugated fiberboard/polyethylene film pallet box for the packaging of arsenci trioxide.	1
8146	Authorizes the transportation of a Poison B solid material in steel portable tanks and collapsible plastic bags.	1
8150	Authorizes the transport of a bleach solution and calcium hypochlorite in the same motor vehicle.	1
8151	Authorizes shipment of liquid hazardous materials in five-gallon capacity removable head polyethylene drums.	2
8152	Authorizes the shipment of hydrofluoric acid, solution, in an unlinded DOT Specification MC-312 cargo tank.	1
8153	Authorizes the use of a modified DOT Specification MC-307 or MC-312 cargo tank for the transportation of certain flammable and corrosive liquids.	1
8154	Authorizes the transportation of spent sulfuric acid in tank cars which have bottom outlets closed off with bolted plates.	1
8156	Authorizes the shipment of flammable gases in DOT specification 39 cylinders up to 225 cubic inches in volume.	1
8157	Authorizes the shipment of dinitro-phenol solutions in DOT Specification 34, 30-gallon capacity drums.	2
8158	Authorizes the shipment of wet electric storage batteries in DOT Specification 15A or 15B wooden boxes.	2
8159	Authorizes the use of non-DOT specification portable tanks for the transportation of a hydrogen peroxide solution.	2

Number	Purpose	Reason
8162	Authorizes the manufacturer, mark and sell of a non-DOT specification cylinder for shipment of certain nonflammable compressed gases.	1
8163	Authorizes the use of non-DOT specification portable tanks for the transportation of various hazardous materials.	2
8164	Authorizes the transport of an explosive disconnector excepted from 49 CFR, Parts 1/0-177 in a non-DOT specification box.	2
8165	Authorizes the use of non-DOT specification packaging that is at least equal to that specified in the regulations.	1
8166	Authorizes the use of a DOT Specification cargo tank not presently authorized for the transportation of oxidizing material.	1
8167	Authorizes the shipment of a chromic acid solution in composite packaging consisting of a non-DOT specification fiberboard outer box & expanded polystyrene/glass bottle inner packaging.	2
8168	Authorizes the use of a non-DOT specification fuly removable head polyethylene drums of 30- and 57 gallon solids and solid oxidizers.	1
8170	Authorizes the shipment of silver oxide in a non-DOT specification removable head, 30-gallon capacity, 16-gauge stainless steel container, enclosed in a wire basket.	2
8171	Authorizes shipment of various liquid hazardous materials in non-DOT specification IMCO type II portable tanks.	2
8174	Authorized the carriage of certain explosives by cargo-only aircraft.	3
8175	Authorizes shipment of benzoyl peroxide, wet, in a plastic lined DOT Specification 21C fiber drum, without an inside polyethylene container.	2
8177	Authorizes the shipment of a material corrosive to the skin, but not to metal, in a non-DOT specification metal can, overpacked with a nonhazardous material in a DOT Specification 12B fiberboard box.	1
8178	Authorizes the use of a non-DOT specification composite cylinder for a compressed nonliquefied gas.	1
8180	Authorizes the use of a non-DOT specification steel drum for a specified corrosive material and a flammable liquid.	1
8181	Authorizes the use of expanded polystyrene cases complying with DOT Specification 33A except case has six compartments instead of four, for shipment of certain corrosive liquids.	1
8182	Authorizes the use of non-DOT specification intermodal portable tanks for the transportation of a Poison B solution.	2
8183	Authorizes the shipment of cleaning liquid compounds in a modified tight-head fiber drum.	2
8184	Authorizes shipment of trinitrotoluene in a non-DOT specification multi-wall paper polyethylene jute composite bag with net weight not exceeding 100 pounds.	1
8186	Authorizes sodium potassium liquid sealed in a stainless steel temperature sensing bulb of a thermostat to be shipped in a non-DOT specification corrugated fiberboard box.	1
8188	Authorizes the use of a DOT Specification 34 reusable polyethylene container of a 30-gallon capacity for the shipment of a liquefied paint product.	1
8189	Authorizes shipment of a liquid organic phosphate compound in DOT Specification MC-311 tank motor vehicle and 6D/2SL packagings.	1
8192	Authorizes the shipment of arsenic acid in a DOT Specification 34 container.	2

Number	Purpose	Reason
8194	Authorizes the use of a fiberboard box complying with DOT Specification 12B (except for closure method and its one-piece, die cut design) for shipment of liquid organic peroxides.	1
8195	Authorizes use of non-DOT specification metal drums as outside containers in lieu of prescribed DOT specification fiberboard or wood containers.	2
8196	Authorizes the use of a non-DOT specification portable tank for the transportation of certain compressed gases.	1
8197	Authorizes the use of a non-DOT Specification 34 type packaging for certain corrosive, flammable and poison B liquids and liquid organic peroxides.	2
8198	Authorizes the shipment of medical devices containing small quantities of picric acid and sodium hydroxide.	1
8199	Authorizes shipment of liquefied anhydrous hydrogen chloride in a DOT Specification MC-331 cargo tank.	1
8201	Authorizes the use of non-DOT specification portable tanks.	2
8203	Authorizes the use of certain non-DOT specification portable tanks in the transportation of various poison, flammable oxidizer, or corrosive liquids.	2
8204	Authorizes use of a shipper-furnished short form straight bills of lading which contain a minor variation in the prescribed certificate.	1
8206	Authorizes shipment of certain corrosive liquids, n.o.s. in two one-quart tin cans, overpacked in a modified 26-gauge, unlined DOT Specification 17A five-gallon drum.	2
8207	Authorizes shipment of certain corrosive liquids, n.o.s., in a one-quart tin can, placed in a molded polyethylene liner, overpacked in a modified 28 gauge DOT Specification 37A 2-gallon drum.	2
8208	Authorizes the shipment of liquid propellant samples, frozen, in non-DOT specification plywood boxes.	5
8209	Authorizes carriage of Class A, B., and C explosives not permitted for air shipment or in quantities greater than those prescribed for air shipment.	1
8210	Authorizes shipment of certain oxidizing materials in up to 20 lb. 2 ml. polyethylene bags overpacked in plastic containers or fiberboard containers further overpacked in DOT spec. 12A or 12B box.	2
8211	Authorizes shipment of certain flammable liquids having flash points above 20 degrees F in DOT specification 37A, 22 gauge, 7 gallon capacity steel drums.	2
8212	Authorizes the transportation of Class A and Class B rocket ammunition by cargo-only aircraft.	3
8213	Authorization to manufacture, mark and sell a modified DOT specification cargo tank for the shipment of certain waste materials.	1
8214	Authorizes the transportation of inflators and modules for passive restraint systems for use in automobiles.	
8215	Authorizes the shipment of certain identified Class A, B, and C explosives in non-DOT specification containers.	3
8217	Authorizes shipment of flammable, combustible, corrosive, and poison liquids, and ORM-A materials in non-DOT specification ISO portable tanks.	2
8218	Authoirzes the shipment of certain identified solid propellant explosives, Class B, in non-DOT specification containers.	2
8219	Authorizes the shipment of certain solid propellant explosives in a non-DOT specification plastic bag.	2

Number	Purpose	Reason
8220	Authorizes the use of non-DOT specification small, high pressure cylinders of welded construction for aircraft use in the transportation of nonflammable compressed gases.	1
8221	Authorizes the use of non-DOT specification high pressure cyliners of welded construction for military missile systems use only.	3
8222	Authorizes the use of a non-DOT specification portable tank for the transportation of a corrosive material.	2
8225	Authorizes the use of a non-DOT specification rotationally molded, cross-linked polyethylene portable tank for the shipment of corrosive liquids and an oxidizer.	2
8226	Authorizes shipment of various flammable, corrosive combustible, poison liquids and oxidizers in non-DOT specification IMCO type 1 portable tanks.	2
8227	Authorizes the shipment of various hazardous materials in non-DOT specification IMCO type II portable tanks.	2
8228	Authorizes the transportation of packages containing not in excess of 35 grams of one type of explosives material or one explosive device, not exceeding 35 grams, in any one package.	4
8229	Authorizes the transport vehicle containing combined shipments of nitrocarbo nitrate (oxidizer) and blasting agent, n.o.s. (blasting agent) to be placarded as blasting agent only.	1
8230	Authorizes the shipment of certain oxidizers in non-DOT specification containers.	1
8232	Authorizes use of a non-DOT specification portable tank for the transportation of certain compressed gases.	2
8234	Authorizes the use of non-DOT specificatin portable tanks for the transportation of certain flammable corrosive, poison B, combustible, and ORM-A materials.	2
8235	Authorizes the use of a non-DOT specification portable tank.	2
8236	Authorizes the transport of a passive restraint system, and the inflator therefore, containing a class B explosive, as a flammable solid.	1
8237	Authorizes the transportation of a device containing lithium batteries and a cylinder containing compressed nitrogen in a wooden box.	1
8238	Authorizes the shipment of arsenical flue dust in non-DOT specification packaging.	2
8239	Authorizes the use of non-DOT specification containers for the shipment of nonflammable gases.	1
8240	Authorizes the use on non-DOT specification intermodal portable tanks for certain specified hazardous materials.	2
8241	Authorizes the shipment of certain gases in cylinders complying with 173.34(e)(15) except2 cylinders are over 35 years old.	
8243	Authorizes the use of a non-DOT specificatin portable tank for shipment of a poison B solid.	
8244	Authorizes shipment of various flammable, combustible, and corrosive materials in lined marine portable tanks.	1
8245	Authorizes use of DOT specification 60 (rubber lined) portable tank, less post weld heat treatment, for shipment of commodities presently authorized in DOT 60 plus mixtures of hydrofluoric acid.	2
8246	Authorizes the use of non-DOT specification cylinders for the transportation of helium and neon gases.	5
8247	Authorizes the use of a 6-gallon capacity DOT Specification 34 container for the shipment of 95% to 98% sulfuric acid.	2

Number	Purpose	Reason
8248	Authorizes the shipment of various corrosive liquids in a modified DOT Specification 15C wooden box containing four compartments with glass bottle in an aluminum shipping cannister in each compartment.	2
8249	Authorizes hazardous materials, which are required to bear the POISON label, to be transported without the label when shipped in prescribed packaging.	1
8250	Authorizes carriage of Class A, B, and C explosives not permitted for air shipment or in quantities greater than those prescribed for air shipment.	1
8251	Authorizes transportation of various flammable, combustible, corrosive, and poisonous liquids in non-DOT specification IMCO type II portable tanks.	2
8252	Authorizes shipment of various corrosive materials and a flammable liquid in non-DOT specification IMCO type I portable tanks.	2
8253	Provides for the conversion on a non-DOT specification 55-gallon steel drum to an open-head, DOT Specification 17H drum.	2
8254	Authorizes the use of a non-DOT specification sphere for shipment of certain nonflammable gases.	2
8255	Authorizes the use of non-DOT specification cylinder for shipment of certain nonflammable gases.	2
8256	Authorizes shipment of stabilized sulfur trioxide in DOT Specification 105A100W and 111A100W2 tank cars equipped with standpipe electrical heaters as a modified safety safety relief device.	1
8258	Authorizes the use of a non-DOT specification cyliner for shipment of a certain nonflammable compressed gas.	1
8259	Authorizes shipment of various flammable, combustible, corrosive, poison liquids and oxidizers in non-DOT specification IMCO type I portable tanks.	2
8260	Provides for the conversion of a non-DOT specification 55-gallon steel drum to an open-head, DOT Specification 17H drum.	2
8262	Authorizes the one-time-only shipment of a steam generator, containing a tube bundle with interior corrosion products that include radioactive materials, for carriage by vessel.	3
8263	Authorizes the shipment of certain liquid propellant explosives in non-DOT specification packaging.	2
8264	Authorizes shipment of certain solid propellant explosives (Class B) and smokeless powders for small arms (flammable solids) in non-DOT specification fiber cans or tubes packed in fiberboard boxes.	1
8265	Authorizes transportation of solid propellant explosives and smokeless powder for small arms in non-DOT specification fiber tubes and 21C fiber drums packed in fiberboard boxes.	1
8268	Authorizes shipment of certain amines meeting both the flammable and corrosive definition in DOT specification 105A class tank cars.	2
8269	Authorization to manufacture, mark and sell certain non-DOT specification cargo tank for the transportation of certain flammable liquids and corrosive liquids.	2
8271	Authorizes shipment of a pyrophoric solid dispersed in a flammable liquid in a non-DOT specification portable tank comparable to DOT specification 51.	2
8272	Authorizes the use of a non-DOT specification cylinder for shipment of a certain nonflammable compressed gas.	2

Number	*Purpose*	*Reason*
8273	Authorizes the transportation of a passive restraint module, and the inflator therefore, containing a Class B explosive as a flammable solid.	1
8274	Authorizes the use of non-DOT specification intermodal portable tanks for the transportation of various flammable, corrosive, poison B, and combustible liquids.	2
8275	Authorizes shipment of various hazardous materials in non-DOT specification IMCO type II portable tanks.	2
8276	Authorizes shipment of materials classed as ORM-D in wire baskets on rollers via private carriage.	2
8277	Authorizes the use of a DOT Specification 2B polyethylene bottle, except that maximum capacity is increased to (5) liters, for the transportation of various hazardous materials.	2
8278	Authorizes the use of a non-DOT specification container for specified flammable gases and liquids.	1
8279	Authorizes the use of a DOT Specification MC-330 cargo tank with a reproduced identification plate.	3
8281	Authorizes the transportation of a solid propellant explosive in non-DOT specification polyethylene-lined polypropylene bag and non-DOT specification polyethylene tube.	2
8282	Authorizes shipment of a liquid organic phosphate compound mixture, a flammable and poison B liquid, in DOT Specification 37P 5-gallon steel drum with inside polyehtylene liner.	2
8283	Authorizes shipment of stabilized sulfur trioxide in DOT Specification 111A60W2 tank car's equipped with standpipe electrical heaters.	2
8284	Authorizes the shipment of oleum in DOT Specification 103AW or 111A100W2 tank cars equipped with safety valves instead of safety vents.	2
8285	Authorizes shipment of limited quantities of flammable liquids and ORM-A materials essentially non-regulated when packaged in special type packaging.	3
8286	Authoirzes the use of non-DOT cargo tanks for certain nonflammable gases.	
8287	Authorizes shipment of a corrosive liquid in a DOT Specification 6D/2SL composite container or a DOT Specification 34 drum equipped with a bung vent.	2
8288	Authorizes stowage of Class A explosives in portable magazines aboard ship at less than the 25-foot separation distance required to crew quarters.	1
8289	Authorizes shipment of certain identified solid propellant explosives in non-DOT specification cylindrical metal cans overpacked in fiberboard boxes.	1
8292	Authorizes the transportation of small quantities of certain hazardous materials as analytical standards.	3
8293	Authorizes shipment of various flammable, combustible, and corrosive liquids in non-DOT specification IMCO type II portable tanks.	2
8294	Authorizes the shipment of various flammable, combustible, corrosive, and poison liquids and oxidizers in non-DOT specification IMCO type II portable tanks.	2
8298	Authorizes the use of a non-DOT specification IMC type I portable tank for the transportation of flammable corrosive, poison B and combustible liquids.	2
8299	Authorizes the use of a non-DOT specification pressure vessel for the transportation of a compressed gas.	2
8301	Authorizes the use of a 30-gallon capacity DOT Specification 34 container for the transportation of certain flammable, corrosive, and poison B liuids, and liquid organic peroxides.	2

Number	Purpose	Reason
8302	Authorizes shipment of an LPG mixture in 5.8 fluid ounce capacity containers equivalent to 2Q, without safety relief devices, as an ORM-D material.	1
8305	Authorizes the shipment of certain corrosive materials in an MC-300 cargo tank.	2
8306	Authorizes shipment of sodium sulfide as a corrosive material in collapsible polyethylene-linded polyproplylene bags having capacity of approximately 2200 pounds each.	2
8307	Authorizes shipment of non-pyrotechnic smoke generators consisting of cylinder reservoirs, containing titanium tetrachloride, ammonium hydroxide, an explosive valve and nitrogen.	2
8308	Authorizes shipment of radioactive materials via motor vehicle when the combined transport index exceeds 50 but is not more than 1000 and/or the separation criteria cannot be met.	2
8309	Authorizes the shipment of refrigerating machines having two charged vessels containing more than 2,000 pounds of Freon (Group I refrigerant) but not more than 10,000 pounds.	1
8314	Authorizes stowage of air conditioner and refrigerator machinery containing a nonflammable compressed gas in the same hold or compartment with motor vehicles.	2
8315	Authorizes the carriage of mehtyl chloride, a flammable gas, in a not authorized tank car in shipments by water mode.	2
8316	Authorizes the shipment of fish meal containing less than 6% but not less than 5% water in paper bags not provided for in 49 CFR 173.171	1
8318	Authorizes the use of non-DOT specification portable tanks for the transportation of certain flammable liquids.	2
8319	Authorizes a one year extension of the ten-year hydrostatic retest requirement on nine DOT specification 114A340W tank car tanks used in vinyl chloride service.	3
8320	Authorizes the transport of an etiologic agent in inside packagings exceeding 500 ml capacity.	2
8321	Authorizes shipment of titanium tetrachloride in DOT specification 60 portable tanks which are overdue for retest.	2
8323	Authorizes the use of non-DOT specification intermodal portable tanks for shipment of certain hazardous materials (liquids).	2
8324	Authorizes transportation of corrosive liquids, n.o.s., in a 1-gallon tin can, placed in molded polyethylene liner, overpacked in modified 26 gauge, 37A 5-gallon drum containing non-hazard resin mix.	2
8325	Authorizes the shipment of certain hazardous materials in non-DOT specification intermodal portable tanks.	2
8327	Authorizes the use of a DOT Specification 51 portable tank for the transportation of 4 tertiary butyl catechol, a corrosive liquid.	2
8328	Authorizes the use of a non-DOT specification container for the transportation of a nonflammable foam-gas mixture.	2
8329	Authorizes the use of DOT Specification 57 portable tanks in less than truckload quantities with other hazardous materials subject to Section 177.848 for the transportation of an oxidizing material.	2
8330	Authorizes a one-time shipment of ammunition for cannon, class A and B explosives which are not presently authorized for shipment by air.	3
8332	Authorizes the use of DOT Specification 57 portable tank for the transportation of certain corrosive materials.	2
8334	Authorizes a one-time shipment of Class A, B, and C explosives which are not presently authorized for shipment by air.	3

Number	Purpose	Reason
8336	Authorizes shipment of certain compressed gases, n.o.s., (methane-ethane mixture) in DOT specification MC-331 tank motor vehicles.	2
8337	Authorizes the manufacture, mark and sale of non-DOT specification cargo tanks for shipment of flammable or corrosive waste, liquid, or semi-solids.	1
8338	Authorizes the shipment of chloropicrin mixtures (containing no compressed gases or Poison A liquids) in DOT Specification 17C drums of 55-gallon capacity.	2
8339	Authorizes the use of non-DOT specifications 34 type polyethylene packaging for certain oxidizers, corrosive liquids, class B poisons, flammable liquids, and a corrosive solid.	2
8340	Provides for the conversion of a non-DOT specification 55-gallon steel drum to an open-head, DOT Specification 17H drum.	1
8341	Authorizes the conversion of a non-DOT specification 55-gallon steel drum to an open-head, DOT Specification 17H drum for the transportation of certain hazardous materials.	1
8342	Authorizes the conversion of a non-DOT specification 55-gallon steel drum to an open-head DOT Specification 17H drum for transportaion of certain hazardous materials.	1
8344	Authorizes the transportation of fiberboard boxes containing different brands of smokeless powder without B of E approval of each box.	2
8345	Authorizes the transportation of nitrostrach, wet, with not less than 20% water in DOT Specification 12H fiberboard boxes lined with polyethylene.	2
8346	Authorizes the use of non-DOT specification intermodal portable tanks for the shipment of corrosive liquids.	2
8347	Authorizes the use of a DOT Specification 57 steel or stainless steel portable tank not previously authorized for the transportation of certain flammable and combustible liquids.	2
8348	Authorization to manufacture, mark and sell non-DOT specification cargo tanks complying with DOT specification MC-312 except for bottom outlet valve for transportation of flammable or corrosive liquid.	1
8349	Authorizes shipment of limited quantities of lithium cells as a consumer commodity.	3
8350	Authorizes the use of DOT Specification MC-306 cargo tanks for the transportation of certain flammable or corrosive liquids.	2
8351	Authorizes the use of a stainless steel DOT Specification 57 portable tank for the transportation of certain corrosive liquids.	2
8352	Authorizes the shipment of ammonium persulfate and sodium persulfate in non-DOT specification plastic bags similar to DOT Specification 44P bags.	2
8353	Authorizes an alternate closure device on DOT Specification 56 portable tanks used in the transportation of ammonium perchlorate, an oxidizer.	2
8354	Authorizes the use of a non-DOT specification portable tank for the transportation of certain flammable liquids and flammable gases.	2
8355	Authorizes the use of non-DOT specification portable tanks for the transportation of certain liquefied petroleum gases, other flammable gases, and a flammable liquid.	2
8360	Authorizes the use of a modified DOT specification cargo tank for the transportation of certain flammable and corrosive liquids.	2
8361	Authorizes the shipment of a temperature measuring device containing small quantity of gallium metal in non-DOT specification packaging.	2
8362	Authorizes the shipment of batteries containing lithium metal and thionyl chloride in fiberboard boxes overpacked in wooden boxes.	1

Number	*Purpose*	*Reason*
8363	Authorizes the shipment of certain identified solid propellant explosives.	1
8364	Authorizes the use of non-DOT specification aluminum cylinders for the shipment of certain liquefied and nonliquefied compressed gases.	2
8365	Authorizes the use of a modified DOT Specification MC-307 or MC-312 cargo tank for the transportation of certain flammable and corrosive liquids.	2
8367	Authorizes the shipment of certain batteries and hydrogen gas in non-DOT specification containers.	2
8369	Authorizes the transportation of glycidol at a controlled temperature and separated from certain other chemicals in non-DOT specification drums.	2
8370	Authorizes the use of a non-DOT specification intermodal portable tank for shipment of various flammable and combustible liquids and corrosive materials.	2
8371	Authorizes the use of a non-DOT specification portable tank lined with phenolic resin for the transportation of a corrosive material.	2
8372	Authorizes certain corrosive materials in non DOT specification portable tanks.	2
8374	Authorizes the transport of certain hazardous materials in non-DOT specification intermodal-portable tanks.	2 2
8375	Authorizes the use of non-DOT specification portable tanks, for shipment of various hazardous materials.	2
8377	Authorizes the transportation of devices described as detonating fuses, Class C explosives, in fiberboard boxes inside wooden boxes.	2
8378	Authorizes the use of DOT Specification 2E polyethylene bottles for dilute nitric and solution.	2
8379	Authorizes the transportation of a flammable solid, n.o.s., in portable tanks complying with DOT Specification 57 except for capacity and specification identification.	2
8380	Authorizes a slightly larger DOT Specification 2Q container and a variation in heat test procedure for filled inside metal containers for transportation of certain compressed gases.	1
8381	Authorizes use of DOT Specification 44P bag for containment and return of DOT Specification 44D packages of certain class B poisonous solids.	2
8382	Authorizes the use of a non-DOT specification cylinder in the transportation of specified nonflammable gases.	2
8383	Authorizes the use of a non-DOT specification pressure vessel for the transportation of specified nonflammable gases.	2
8384	Authorizes the use of a DOT Specification 57 portable tank with a polyethylene liner for shipment of a corrosive material.	2
8385	Authorizes more than 225 pounds of a certain Class B explosive to be transported in a DOT Specification 21C 400 fiber drum.	1
8386	Authorizes the transportation of a Class B poison in special pressure sealed polyethylene capsules without the POISON label.	2
8387	Authorizes the transportation of hydrogen peroxide in DOT Specification MC 312 tank motor vehicle aboard cargo vessel.	2
8388	Authorizes shipment of liquid hazardous materials in a five-gallon capacity removable head polyethylene drum.	2
8389	Authorizes the use of a 15 gallon capacity polyethylene DOT Specification 34 packaging for shipment of certain poisonous liquids.	2

Number	Purpose	Reason
8390	Authorizes the shipment of 95%–98% sulfuric acid in DOT Specification 2E polyethylene bottles overpacked in DOT Specification 12A80 fiberboard boxes.	2
8391	Authorizes the use of a non-DOT specification cylinder for shipment of various nonflammable gases.	2
8394	Authorizes shipment of small quantities of sodium-potassium aloy contained in thermostats overpacked in fiberboard boxes, as regulated material.	3
8395	Authorizes shipment of ehtylene oxide in inside aluminum cartridges, contents not over 138 grams each, packed in outside packagings as specified in 49 CFR 173.124(a)(3).	2
8396	Authorizes the transportation of a flammable liquid which is also an organic peroxide in DOT Specification MC-307 and MC-312 cargo tanks.	2
8397	Authorizes the use of non DOT specification, reusable, molded polyethylene drums with removable head for shipment of various dry hazardous materials.	1
8400	Authorizes the carriage of certain explosives by cargo-only aircraft.	1
8401	Authorizes the carriage of fuel in cargo compartments of passenger-carrying helicopters.	5
8402	Authorizes the movement of hazardous wastes from Seymour, Indiana to Calument City, Illinois.	5
8405	Authorizes a one-time shipment of liquefied nitrogen in a non-DOT specification portable tank.	4
8407	Authorizes transport within a plant over public highway via fork-lift trucks waste residues, classed as corrosive liquids, n.o.s., without shipping papers, contained in non-DOT specification portable tanks.	1
8408	Authorizes non-DOT specification cargo tanks complying with DOT Specification MC-307/312 except for bottom outlet valve variation for transport of flammable or corrosive waste liquids or semis.	2
8409	Authorizes shipment of hydrofluoric acid solution no greater than 70% in non-DOT specification polyethylene bottles not exceeding 6 liters capacity packed in DOT Specification 12A fiberboard box.	2 2
8410	Authorizes shipment of perchloric acid not to exceed 72% in glass bottles of not more than 2.5 liters overpacked 6 to a non-DOT specification 1MCO 4C2 wooden box.	2
8419	Authorizes the bulk shipment of various class B poisons and debris contaminated therewith in open top motor vehicles covered with polyethylene sheets and tarpaulin.	5
8421	Authorizes two shipments of inhibited hydrochloric acid solution in a DOT Specification 60 portable tank.	2
8423	Authorizes the transportation of small quantities of hazardous materials in prescribed non-DOT packagings.	2
8427	Authorizes the use of a DOT Specification 3A or 3E stainless steel cylinder for shipment of anhydrous hydrazine.	2
8429	Authorizes a one-time shipment of a stereotaxic radioactive treatment unit.	
8447	Provides for the conversion of a non DOT Specification 55-gallon steeldrum to an open-head, DOT-1/h drum.	1
8448	Authorizes the carriage of fuel (flammable liquid) in DOT Specification 5B, 5L, or 34 containers, loaded in cargo compartments of passenger-carrying helicopters.	4
8453	Authorizes the use of non-DOT specification cargo tanks and DOT Specification MC-306, 307, or 312 stainless steel cargo tanks to transport blasting agents.	2

Number	Purpose	Reason
8455	Authorizes the use of water-tight, sift-proof bulk metal containers for shipment of salt-coated mangesium granules.	2
8460	Authorizes the use of non-DOT Specification IMCO Type I portable tanks for shipment of corrosive materials.	2
8461	Authorizes shipments of phosphorus pentasulfide layered between sand in "dump" trucks.	5
8469	Authorizes the shipment of a liquid propellant tentatively classed as class B explosive.	4
8470	Authorizes use of a non-DOT specification box for shipping rocket motors.	5
8472	Authorizes the use of non-DOT specification containers for shipment of a non-flammable gas.	1
8481	Authorizes the transportation of Class A explosive projectiles by cargo-only aircraft.	2
8483	Authorizes the transportation of rocket motors, Class B explosives with igniters installed in non-DOT specification packaging and by cargo-only aircraft.	5
8484	Authorizes limited shipments of liquefied nitrogen in non-DOT specification portable tanks.	4
8485	Authorizes shipment of a Class A explosive in open top gondola cars, equipped with friction type bearings and cast iron brake shoes.	5
8490	Authorizes the use of a DOT Specification MC 306 cargo tank for shipment of certain corrosive materials.	2
8492	To manufacture, mark and sell a non-DOT specification cylinder (calibration device) for shipment of liquefied hydrogen sulfide.	2
8496	Authorizes the use of certain non-authorized DOT specifications containers for shipment of poison B liquid.	1
8497	Manufacture, mark and sell polyethylene drums complying with DOT Specification 34 except for polyethylene melt index and markings for shipment of flammable or corrosive liquids and an oxidizer.	2
8499	Manufacture, mark and sell DOT Specification 34 30-gallon polyethylene drums for shipment of certain flammable, corrosive, and poison B liquids.	1
8500	Authorizes the transportation of passive restraint systems and inflators as flammable solids in DOT Specification 12H 65 fiberboard box.	2
8512	Authorizes the shipment of potassium chlorate in polyethylene lined bags.	4
8513	Authorizes limited shipments of liquefied nitrogen pressurized in non-DOT specification portable tanks.	5
8516	Authorizes shipment of ammonium nitrate-fertilizer, classed as an oxidizer and ammonium nitrate-fuel oil, classed as a blasting agent to be stowed in the same hold or compartment aboard ship.	2
8524	To authorize shipment of hydrofluosilicic acid, clased as a corrosive material in DOT specification 111A199W5 tank car tanks which are lined with vinyl ester.	2
8527	Authorizes placarding of rail transport vehicles in the same manner as prescribed for highway transport vehicles for shipment of various hazardous materials.	5
8529	Authorizes the transportation of rocket ammunition with explosive projectile and/or smoke projectile for shipment by cargo-only aircraft.	5
8531	Authorizes shipment of nitro carbo nitrate in prescribed DOT Specification bags labeled oxidizer, after December 31, 1980, in order to utilize the existing inventory.	1
8540	Authorizes the shipment of oxygen candles packaged in specially designed metal containers.	2
8541	Authorizes shipment of nitro cargo nitrate in prescribed DOT Specification bags labeled oxidizer, after December 31, 1980, in order to utilize the existing inventory.	2

APPENDIX C

STATE REPORT OF STATE ADOPTION OF FEDERAL HAZARDOUS MATERIALS REGULATIONS

Status of Federal Hazardous Materials Regulations Adopted by States as of March 25, 1981

State	PART 171 General information, regulations, and definitions	PART 172 Hazardous materials table and hazardous materials communications regs.	PART 173 Shippers—General requirements for shipments and packagings	PART 177 Carriage by public highway	PART 178 Shipping container specifications	PART 179 Specifications for tank cars
Alabama	B	B	B	B	B	D
Alaska	D	D	D	B	D	D
Arizona	A	A	A	A	A	A
Arkansas	A	A	A	A	A	A
California	A	A	A	A	A	A
Colorado	B	B	B	B	B	D
Connecticut	A	A	A	A	A	D
Delaware	A	A	A	A	A	D
District of Columbia	A	A	A	A	A	D
Florida	D	D	D	D	D	D
Georgia	C	C	C	C	C	C
Hawaii	A	A	A	A	A	D
Idaho	A	A	A	A	A	A
Illinois	A	A	A	A	A	B
Indiana	D	D	D	D	D	D
Iowa	A	A	A	A	A	A
Louisiana	A	A	A	A	A	D
Kansas	A	A	A	A	A	A
Kentucky	A	A	A	A	A	B
Maine	D	D	D	B	D	D
Maryland	B	B	B	A	B	D
Massachusetts	A	A	A	A	A	A
Michigan	A	A	A	A	A	A
Minnesota	A	A	A	A	A	A
Mississippi	A	A	A	A	A	D
Missouri	A	A	A	A	A	D
Montana	A	A	A	A	A	A
Nebraska	D	D	D	D	D	D
Nevada	A	A	A	A	A	D
New Hamsphire	C	C	C	C	C	D
New Jersey	C	C	C	C	C	C
New Mexico	A	A	A	A	A	
New York	A	A	A	A	A	A
North Carolina	A	A	A	A	A	A
North Dakota	D	D	D	B	D	D
Ohio	A	A	A	A	A	A
Oklahoma	D	D	D	D	D	D
Oregon	A	A	A	A	A	A
Pennsylvania	A	A	A	A	A	D
Rhode Island	A	A	A	A	A	A
South Carolina	A	A	A	A	A	A
South Dakota	A	A	A	A	A	A
Tennessee	A	A	A	A	A	A
Texas	B	A	A	A	A	D
Utah	A	A	A	A	A	D
Vermont	A	A	A	A	A	A
Virginia	B	B	B	B	B	C
Washington	A	A	A	A	A	A
West Virginia	D	D	D	D	D	D
Wisconsin	A	A	A	A	A	A
Wyoming	A	A	A	A	A	A

Code: A = Adopted completely; B = Adopted in part; C = Has similar rule; D = Has no rule Source: Federal Highway Administration (BMCS) HMC-11.4

*U.S. GOVERNMENT PRINTING OFFICE: 1982 361-428/2180 1-3